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Impact Statement

Draft

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BOISE DISTRICT
1982

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DRAFT

OWYHEE WILDERNESS PLAN AMENDMENT

AND

ENVIRONMENTAL IMPACT STATEMENT

Prepared By

Bureau of Land Management
Department of the Interior

Idaho State Director, Bureau of Land Management

March 3, 1849

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Boise District Office
3948 Development Avenue
Boise, Idaho 83705

IN REPLY REFER TO

8500

We have forwarded for your review and comment the Draft Owyhee Wilderness Plan Amendment/EIS. This draft has been prepared by a team of resource specialists from the Bureau of Land Management's Boise District to assess the suitability of five Wilderness Study Areas (WSA 16-40, 41, 42, 45, and 47) as designated wilderness.

Please keep your copy of the draft because only an abbreviated final may be printed. The Final Owyhee Wilderness Amendment/EIS will be prepared using the comments received through the public review process on the draft document. The final document will contain a record of public participation and consultation, and an addendum section recording changes made in the draft.

Two public hearings will be scheduled to receive oral and written testimony on this draft document. The hearings will be held on separate days in Boise, Idaho and Jordan Valley, Oregon in June, 1982. Information regarding the specific location and time of each hearing will be published at a later date.

Written comments are invited. They must be received on or before ___________ to be considered in the preparation of the Final Owyhee Wilderness Amendment/EIS. Oral and written comments will receive equal consideration in the final document. Written comments are to be submitted to:

Bureau of Land Management
Owyhee Wilderness Plan Amendment/EIS
Boise District Office
3948 Development Avenue
Boise, Idaho 83705

We look forward to your comments and thank you for past and future assistance in our effort to manage public lands in the best interest of all concerned.

Sincerely yours,

Martin Zimmer

Martin J. Zimmer

OWYHEE WILDERNESS PLAN AMENDMENT/EIS

(X) Draft ( ) Final Owyhee Wilderness Plan Amendment/
Environmental Impact Statement

Department of the Interior
Bureau of Land Management

1. Type of Action: ( ) Administrative (X) Legislative

2. Abstract: The Bureau of Land Management proposes to recommend to the Secretary of the Interior that 93,610 acres in five Wilderness Study Areas (WSAs) in Owyhee County, Idaho, are nonsuitable for wilderness designation. This document analyzes the environmental consequences of the proposal and four alternatives for suitable wilderness recommendations.

   The five WSAs under consideration are:

   WSA 16-40, North Fork Owyhee River
   WSA 16-41, Big Willow (Horsehead) Spring
   WSA 16-42, Squaw Creek Canyon
   WSA 16-45, Middle Fork Owyhee River
   WSA 16-47, West Fork Red Canyon.

3. Comments Must Be Received By: ____________________________

4. Send Comments To:

   Bureau of Land Management
   Owyhee Wilderness Plan Amendment/EIS
   Boise District Office
   3948 Development Avenue
   Boise, Idaho 38705

5. For More Information Contact:

   Ted Milesnick, Team Leader
   John Benedict, Team Coordinator
   Telephone (208) 334-1582

SUMMARY

The purpose of this Draft Owyhee Wilderness Plan Amendment/EIS is to develop a recommendation concerning the suitability of wilderness designation for five Wilderness Study Areas (WSAs) in the BLM Boise District's Owyhee Resource Area. The Amendment/EIS was prepared in conformance with the BLM Wilderness Study Policy and planning regulations 43 CFR 1600. The five WSAs under consideration are:

16-40,	North Fork Owyhee River	- 49,470 acres
16-41,	Big Willow (Horsehead) Spring	- 6,210 acres
16-42,	Squaw Creek Canyon	- 10,780 acres
16-45,	Middle Fork Owyhee River	- 14,180 acres
16-47,	West Fork Red Canyon	- 12,970 acres
	TOTAL	93,610 acres 1/

1/ The intensive inventory acreage was higher (98,955 acres) due to variations in map projections and planimeter accuracy.

The land management alternatives presented were developed based upon:

1. the issues of concern to the public;
2. the manageability of the WSAs as wilderness;
3. the relative wilderness values of the WSAs;
4. the degree of conflict between competing resource values;
5. the consideration of short-term special stipulations for land treatments within wilderness alternatives.

The five alternatives considered are shown in the table below:

Acres of Wilderness Recommended in Each Alternative 1/

	WSA				
Alternative	16-40	16-41	16-42	16-45	16-47
No Action/ No Wilderness	0	0	0	0	0
All Wilderness	51,505	48,220 2/			
Partial #1	47,955	0	0	0	0
Partial #2 3/	41,550	0	0	0	0
Partial #3 3/	41,550	6,100	0	0	0

1/ Acreage recommendations include proposed exchanges of state and federal lands.
2/ Acreage managed as one wilderness area of four adjoining units.
3/ Wilderness designation would include special stipulations for land treatments to control juniper.

PROPOSED ACTION (NO ACTION/NO WILDERNESS)

The proposed action is to recommend that none of the five WSAs are suitable for wilderness designation because wilderness designation would not be in the best interest of multiple use management. Specifically:

1. Portions of the WSAs with the most significant wilderness characteristics could be equally protected by administratively recognized special recreation management areas.

2. The five WSAs are a poor representation of the Sagebrush Steppe ecosystem because of the poor ecological condition of plant communities. There is no expectation for improvement in plant communities under wilderness management unless the BLM Wilderness Management Policy is modified to permit juniper removal not normally allowed in wilderness. The achievement of good condition for all plant communities and the maintenance of open sagebrush-bunchgrass areas is the primary objective of multiple use management in the affected areas. This objective must be done with the control and/or removal of juniper forests along with the implementation of intensive grazing systems which may not be compatible with wilderness.

3. The proposed action provides the flexibility necessary to ensure the most benefits for the most resources.

4. There is considerable potential wilderness within the Sagebrush Steppe ecosystem from which to choose, including a number of areas containing juniper forests. Areas in poor condition with the least expectation for improvement under the BLM Wilderness Management Policy may be less suitable for wilderness than other areas.

5. The WSAs are manageable to protect wilderness characteristics. However, wilderness management would not ensure the maintenance or improvement of multiple use values, including some supplemental values, as well as the proposed action.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

The impacts from wilderness designation or nondesignation are similar in each WSA. However, the degree of impact varies depending upon the amount of additional wilderness which may be designated in the other WSAs, particularly if commonly shared grazing allotments are involved. It is the implementation of grazing systems and vegetation manipulation practices within associated allotments which most significantly affects the wilderness resource and other resource values.

Proposed Action

The primary environmental impact of the proposed action is the flexibility it gives land managers to attain and maintain the vegetation in good ecological condition. Mechanical and chemical agents and prescribed burning would be available to manipulate vegetation composition. The major economic benefactor should be the local livestock industry; however, wildlife habitat should also be significantly enhanced.

Livestock grazing levels, vegetation manipulation, and structural rangeland improvements would be implemented based on the Owyhee Management Framework Plan (MFP Step 3) decisions. In 20 years, affected livestock permittees should realize a 38% increase in livestock grazing in their allotments. Annual income gains associated with these livestock gains are projected at $62,000 in five years and $203,000 in 20 years. Secondary impacts on the local economy are estimated at $25,000 annually by year five and $81,000 annually by year 20.

Vegetation manipulation should create habitat for an additional 500 mule deer. Other wildlife including antelope, sage grouse, waterfowl, riparian species, and fisheries would benefit from proposed management activities. Watershed and water yield, availability, and quality would all improve slightly. Present recreation use would continue with potential for expanded opportunities for big game hunting as deer herds expand.

There will be no designated wilderness. Vegetation manipulation would reduce opportunities for solitude and primitive recreation. Some loss of apparent naturalness would also occur. Vegetation manipulation would contribute to a reduction in scenic values in many areas for over 20 years.

All Wilderness Alternative

Under the All Wilderness Alternative, 99,725 acres of juniper-Sagebrush Steppe vegetation would be designated wilderness. This would ensure further representation of this ecosystem in the National Wilderness Preservation System. Present scenic quality would be preserved. Recreation use should become more diversified as publicity about the area draws a wider variety of users.

Land managers would be prohibited from using mechanical or chemical methods to improve vegetation condition. Overall vegetation condition would remain stable or decline. Some areas now in fair or good condition could decline. There would be limited improvement in wildlife habitat, watershed, and water yield, availability, and quality.

It is anticipated there would be no increase in grazing use within the proposed wilderness. Structural rangeland improvements would be limited to facilities necessary to protect the rangeland or wilderness resource. In 20 years, affected livestock permittees should realize a 21% increase in livestock grazing in portions of their allotments not affected by WSAs. Annual income gains associated with these livestock gains are projected at $44,600 in five years and $152,000 in 20 years. Secondary impacts on the local economy are estimated at $18,000 annually for year 5 and $61,000 annually by year 20.

Partial Wilderness Alternatives

The three Partial Alternatives were developed to mitigate conflicts between wilderness management and other potential uses of the land.

Partial Alternatives include: (1) North Fork Owyhee River as wilderness; (2) North Fork Owyhee River as wilderness with special stipulations to permit vegetative manipulation; (3) North Fork Owyhee River and Big Willow (Horsehead) Springs WSAs as wilderness with the above special stipulations. The special stipulations would permit some forms of vegetative manipulation which are normally prohibited in wilderness areas. These actions would be permissible for 15 years with the objective of improving ecological condition of the vegetation while minimizing impacts on other elements of the wilderness resource.

Under the North Fork Owyhee River partial alternative, impacts are similar to the All Wilderness Alternative for the area designated wilderness and similar to the Proposed Action for remaining areas.

When special stipulations are applied in the other alternatives, to facilitate multiple use objectives, impacts are similar to the Proposed Action for the first 15 years except scenic quality would not be lost. After 15 years, however, the exclusion of vegetative manipulation could hinder efforts to continue improvement and enhancement of the vegetation and ecological condition.

Under the three partial alternatives, affected livestock permittees would realize a 34% increase in livestock grazing. Annual income gains associated with the livestock gains would be $56,000 in five years and about $186,000 in 20 years. Secondary impacts on the local economy would be $23,000 annually by year five and $74,000 annually by year 20.

IRRETRIEVABLE/IRREVERSIBLE COMMITMENT OF RESOURCES

There are no significant irretrievable or irreversible commitments of resources caused by any of the alternatives.

DRAFT OWYHEE WILDERNESS PLAN AMENDMENT/EIS
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CHAPTER I
INTRODUCTION

A. PURPOSE AND NEED FOR AMENDMENT

The purpose of this amendment to the Owyhee Management Framework Plan (Owyhee MFP) is to develop a recommendation to the Secretary of the Interior regarding the suitability or nonsuitability of five Wilderness Study Areas (WSAs) for wilderness designation in accordance with the Federal Land Policy and Management Act of 1976. The five WSAs to be considered in this document are listed below. The WSAs total 93,610 acres. The intensive inventory acreage was higher (98,955 acres) due to variations in map projections and planimeter accuracy.

North Fork Owyhee River WSA:		
16-40		49,470 acres
Juniper Mountain WSAs:		
16-41	Big Willow (Horsehead) Spring	6,210 acres
16-42	Squaw Creek Canyon	10,780 acres
16-45	Middle Fork Owyhee River	14,180 acres
16-47	West Fork Red Canyon	12,970 acres

The MFP for the Owyhee Resource Area, Boise District BLM, was completed and approved in March 1981. This plan was developed before the wilderness inventory had been completed and as such it does not reflect the existence of WSAs and does not include either wilderness analysis or suitability recommendations.

The wilderness inventory is now complete pending resolution of appeals, and WSAs have been identified in the lands covered by the Owyhee MFP.

Because BLM wilderness studies and resulting suitability recommendations are scheduled to be completed before the Owyhee land use plan is scheduled for revision, a plan amendment is needed to complete the analysis which will lead to the wilderness recommendations.

B. LOCATION OF WILDERNESS STUDY AREAS

The five WSAs are located 70 to 100 miles south-southwest of Boise in western Owyhee County (Map #1). Two of the areas share boundaries with the State of Oregon. Four WSAs (16-41, 16-42, 16-45 and 16-47) form the west and south slopes of Juniper Mountain. WSA 16-40 surrounds much of the headwaters of the North Fork Owyhee River.

C. THE PLANNING PROCESS

BLM land use planning is guided by the requirements of planning regulations, 43 CFR part 1600. The BLM Wilderness Study Policy provides additional guidance for planning efforts dealing with wilderness. This document fulfills the planning regulations and study policy by providing the following:

1. It contains the information needed to amend the existing land use plan.

2. It serves as the Environmental Impact Statement and meets the requirements of the National Environmental Policy Act (NEPA).

3. It documents the wilderness study process and the rationale supporting the suitability recommendations for each of the five WSAs.

D. CONFORMANCE STATEMENT

Because WSAs and suitability recommendations are not a component of the existing Owyhee MFP, their consideration is not in conformance with the plan and they are being considered through use of a planning amendment. In this instance, a plan amendment is required.

CHAPTER II
PLANNING ISSUES AND CRITERIA

A. MAJOR ISSUES AND CONCERNS

The scoping process in the Boise District consisted of a coordinated effort for the Owyhee MFP Amendment, Bruneau MFP, and Jarbidge RMP. The coordinated effort was done to allow for districtwide consistency in the use of planning criteria and the response to issues which affect all WSAs in the Boise District.

In March and April of 1981, approximately 400 individuals, organizations, and government representatives were contacted to assist in the effort. There were 22 individuals organizations who provided written responses during this preplanning effort, 18 of which responded specifically to issues. As a result of these written comments and comments given orally at the public meetings, five major issues with associated subissues were identified for use in the Owyhee Wilderness Amendment/EIS:

1. Effects of Livestock Operations on Wilderness Management and of Wilderness Management on Livestock Operations.

   - How will wilderness designation affect livestock grazing levels, future range developments, methods of operation, and the implementation of intensive grazing systems?

   - Should a history of widespread livestock use preclude designation of a WSA as wilderness even though it is an allowable nonconforming use?

   - Will wilderness designation protect livestock operations on public land from potentially incompatible uses such as ORV use and mineral exploration and development?

2. BLM Management to Protect Wilderness Values.

   - Are specific BLM WSAs manageable as designated wilderness?

   - What constitutes manageability?

   - Could other land use classifications effectively protect values in the WSAs?

3. Effects of Wilderness Designation on Social and Economic Conditions.

   - What will be the effects of designation of any or all WSAs on the local and state social and economic situation?

   - How will the "quality of life" of citizens of the state and local areas be affected?

- Will visitor use increase more because of wilderness designation; if so, how will local government services be affected by BLM visitor use management?

4. Effects of Juniper Invasion on the Question of Designation or Nondesignation.

   - How should juniper encroachment affect a designation/nondesignation decision?

   - Should an area in poor ecological condition resulting from juniper encroachment be designated wilderness to insure additional representation of an ecosystem in the National Wilderness Preservation System?

   - What methods of ecosystem restoration are acceptable in wilderness areas?

5. Effects of Wilderness Designation on Existing Multiple Use Management Plans.

   - How will wilderness designation affect other multiple resource values of wildlife, water, recreation, vegetation, soils, scenery, lands (use of state lands), and cultural resources?

   - Are wilderness values more important than multiple use objectives associated with the removal of juniper?

On October 8, 1981, a Federal Register notice was published which requested additional public input on wilderness issues and the development of planning alternatives specifically for the Owyhee Amendment/EIS. Further comment was solicited at public meetings in Boise and Marsing, Idaho, on November 19 and 20, 1981, and through another mass mailing. Five additional responses concerning issues were received as a result of this second public involvement effort; however, none resulted in a change in issues. Public comment concentrated on planning criteria and alternative formulation, or upon issues already identified.

B. PLANNING CRITERIA

All BLM wilderness recommendations are based upon consideration of the following planning criteria and quality standards.

Criterion No. 1: Evaluation of Wilderness Values

Consider the extent to which each of the following components contribute to the overall value of an area for wilderness purposes.

1. Mandatory Wilderness Characteristics: The quality of an area's size, naturalness, and outstanding opportunities for solitude or primitive recreation.

2. Special Features: The presence or absence, and quality of the optional wilderness characteristics - ecological, geological, or

other features of scientific, educational, scenic, or historical value.

3. Multiple Resource Benefits: The benefits to other multiple resource values and uses which only wilderness designation of the area could ensure.

4. Diversity in the National Wilderness Preservation System: Consider the extent to which wilderness designation of the area under study would contribute to expanding the diversity of the National Wilderness Preservation System from the standpoint of each of the factors listed below.

    a. Expanding the diversity of natural systems and features as represented by ecosystems and landforms.

    b. Assessing the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers.

    c. Balancing the geographic distribution of wilderness areas.

    The analysis should consider federal and state lands designated as wilderness, areas officially recommended for wilderness, and other federal and state lands under wilderness study.

Criteria No. 2: Manageability

The area must be capable of being effectively managed to preserve its wilderness character.

Quality Standards

Standard No. 1: Energy and Mineral Resource Values
Standard No. 2: Impacts on Other Resources
Standard No. 3: Impact of Nondesignation on Wilderness Values
Standard No. 4: Public Comment
Standard No. 5: Local Social and Economic Effects
Standard No. 6: Consistency with Other Plans

CHAPTER III
ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. DESCRIPTION OF ALTERNATIVES

Proposed Action (No Action/No Wilderness Alternative): Map 2

The proposed action is to recommend that all 93,610 acres of the five Wilderness Study Areas (WSAs) are nonsuitable for wilderness designation. All resources within the WSAs would be managed in accordance with the existing Owyhee Management Plan when the WSAs are released from the Interim Management Policy (IMP). Many of the planned resource activities can occur under the IMP with some restrictions.

A brief summary of the Owyhee Management Plan as it affects specific resources within the WSAs is shown below.

1. Cultural Resources:

    a. Stabilize the deterioration of historic and archaeological sites and mitigate impacts from other resources.

    b. Protect known historic and archaeological values through public education, interpretation, visitor contacts and patrols, and by withholding site identification and location information.

    c. Excavate only when site destruction is unavoidable; salvage information through photographs, sketches, and local informant interviews.

2. Forest Resources:

    a. Manage the harvesting of juniper for firewood and fence posts in a manner consistent with juniper removal projects identified by other resources.

    b. Juniper cutting would be confined to seral forests occupying sagebrush ecological sites. Climax juniper forests in canyons, rock outcrops and shallow breaks would not be harvested.

    c. Prescribed burning in combination with mechanical and chemical treatments would be used to remove seral juniper forests in a manner consistent with other resource needs.

3. Lands:

    a. Continue negotiations with the State of Idaho for exchange of lands to allow for consolidation of federal and state lands.

b. Continue to permit adequate access to state inholdings until land exchanges occur.

4. Minerals and Energy Resources:

a. The WSAs are currently described as having low mineral and energy potential. Management would allow for exploration and the processing of applications for leasable minerals. It would also allow for appropriation of minerals under the general mining laws and other pertinent laws and regulations. All exploration and development of mineral and energy resources would be conducted in accordance with regulations in a manner to minimize impacts to other resource values.

5. Watershed Resources:

a. Minimize soil erosion by achieving and maintaining good vegetation cover (fair to good ecological condition) on all sites. Forage utilization would not exceed 50%.

b. Minimize soil erosion caused by range projects, land treatments, construction or maintenance of roads or trails, ORV activity, and other recreation activities.

c. Improve stream channel stability and water quality by managing vegetation condition, composition, and cover in riparian zones. Improved riparian zones would be accomplished by controlling livestock utilization through grazing systems, fencing, and construction of alternative water sources.

d. Improve and stabilize streamflows by use of snow fences, trees, and shrubs to manipulate snow accumulation and control snow melt.

e. Increase groundwater supply with the management of meadows and springs through the use of check dams, restricted meadow use, and maximization of perennial grasses and grass-like plants.

6. Wildlife Resources:

a. Improve terrestrial wildlife habitat by:

(1) Allocating forage to wildlife by allotment and pasture.

(2) Managing for good ecological condition, particularly in riparian areas as described under Watershed Resources.

(3) Establishing grazing systems which recognize the physiological requirements of key forbs and shrubs.

Design all systems to improve palatable shrub composition, reproduction and forage availability.

(4) Manipulating vegetation through prescribed burning or by mechanical and chemical means to improve vegetation structure and composition in areas of sagebrush and juniper invasion.

b. Improve aquatic wildlife habitat by:

(1) Managing fish habitat to achieve and maintain good to excellent condition. Improving condition would be accomplished with stream bank stabilization, water quality improvement and by providing improvements in both in-stream cover and overhead vegetative cover in riparian areas. The improved riparian cover, stream bank stability and water quality would result from controlling livestock utilization of riparian areas as described in Watershed Resources, and from the placement of log structures along stream banks. In-stream cover would be improved by placing boulders and debris jams in streams and by excavating pools if necessary.

(2) Expanding fisheries habitat for red-banded trout (a sensitive species) along the North Fork Owyhee River by constructing a fish ladder around a 6-foot waterfall in T. 9 S., R. 5 W., Section 34 which is blocking fish migration to upstream areas.

(3) Augmenting stream flows through vegetative manipulation and snowpack management as described under Watershed Resources.

7. Range Resources:

a. Improve the rangeland resource by improving the overall ecological condition of the range. Improvement would result by developing intensive and less intensive grazing systems to control livestock utilization. The grazing systems would incorporate:

(1) The construction and maintenance of stock ponds (reservoirs), springs and fences.

(2) The allocation of forage based upon a 50% utilization of key species or the physiological requirements of the key species.

(3) The vegetative manipulation of seral juniper forests and dense sagebrush stands to re-establish sagebrush-bunchgrass communities on appropriate soil types. Vegetative manipulation would be done by presribed burning or by mechanical or chemical means.

Seeding of treated areas would occur when natural revegetation would not provide adequate forage production.

(4) The development of allotment management plans (AMPs) which would address specific rangeland practices and developments.

8. Recreation Resources:

a. Protect outstanding primitive and semi-primitive recreation values of major recreation attraction areas through the development of management plans for two Special Recreation Management Areas (SRMAs): the North Fork Owyhee River and Juniper Mountain SRMAs. The management plans should maintain settings for dispersed recreation by:

(1) Identifying areas for providing primitive and semi-primitive recreational experiences as well as motorized and nonmotorized opportunities. The canyons and some associated hills and plateaus would provide primitive experiences whereas the remainder of the areas would provide semi-primitive or non-primitive experiences depending upon developments and vegetation manipulation for other resources. All vehicle use would be confined to designated roads and trails (ways).

(2) Providing a managerial and social setting consistent with primitive and semi-primitive experiences in identified areas. Visitor use restrictions would not be implemented until recreation use jeopardizes primitive or semi-primitive social settings. Recreational facilities (trails, campsites, and potable water) would be provided for enhancement and protection of recreational values and other resource values, and for visitor safety as increased use necessitates.

(3) Requiring all resource development projects to be designed to meet Visual Resource Management (VRM) Classification II, III, and IV depending upon location. Major recreational attraction areas such as canyons would be VRM Class II with surrounding areas Class III or IV depending upon sensitivity to major recreation attraction areas and travel corridors.

(4) Identifying the actual size and location of the final SRMA boundaries. The current SRMA boundaries only serve as a base from which to work. Final boundaries would be determined through future planning (activity planning) and public involvement.

All Wilderness Alternative: Map 3

This alternative recommends that all five WSAs are suitable for wilderness designation. The boundaries of the wilderness recommendations would be those of the WSAs except for adjustments found appropriate during the wilderness study. The All Wilderness Alternative calls for adjustments in some of the WSAs' boundaries to (1) improve the manageability of Juniper Mountain as wilderness by managing the four WSAs as a more continuous block of four wilderness areas; (2) improve the manageability of each area through previously planned exchanges of state and federal lands; (3) improve manageability through the identification of more definable and protectable wilderness boundaries.

The wilderness areas would total 99,725 acres. The North Fork Wilderness Area (51,505 acres) and the Juniper Mountain Wilderness Area (four areas totalling 48,220 acres) would be managed to provide for an essentially unmodified natural environment providing only nonmotorized primitive settings for dispersed recreation and solitude opportunities. The areas would be managed in accordance with the BLM Wilderness Management Policy so as to be affected primarily by the forces of nature with man's imprints permissible but substantially unnoticeable. In addition to providing a setting for primitive experiences, management actions would also provide social and managerial settings consistent with primitive recreation opportunities.

The BLM Wilderness Management Policy would restrict land treatments to remove juniper and brush to meet range and wildlife objectives. Lands treatments to benefit range resources would be prohibited. Land treatments for wildlife resources would be extremely limited.

Partial Wilderness Alternative #1 - North Fork Owyhee River Wilderness Area, 16-40: Map 4

This alternative recommends that 47,955 acres of the North Fork Owyhee River WSA are suitable for wilderness designation. This alternative calls for changing the WSA's boundary to improve its manageability as wilderness by considering improved management configurations resulting from planned land exchanges and from the identification of more protectable wilderness boundaries.

The North Fork Owyhee River Wilderness Area would be managed to provide for an essentially unmodified natural environment providing primitive settings for dispersed recreation and solitude opportunities in accordance with the BLM Wilderness Management Policy. The four Juniper Mountain WSAs would be managed under existing MFP guidelines as described in the description of the No Action/No Wilderness Alternative.

Partial Wilderness Alternative #2 - Special Stipulations for the North Fork Owyhee River Wilderness Area, 16-40: Map 5

This alternative recommends that 41,550 acres of the North Fork Owyhee River WSA are suitable for wilderness designation. It calls for boundary adjustments to improve manageability as wilderness resulting from land exchanges and from the identification of more definable and protectable wilderness boundaries. It eliminates areas with high vegetative manipulation potential. The alternative recognizes that vegetation manipulation objectives can be largely accomplished with prescribed burning, and with mechanical and chemical treatment in small portions of the remainder of the WSA.

The suitability recommendation to Congress would call for special stipulations for vegetation manipulation to be written into the enabling wilderness legislation. The special stipulations would specify the degree and methods of mechanical and chemical treatments associated with prescribed burning which would be permissible under the BLM Wilderness Management Policy. Treatments would be limited to removing encroaching juniper forests from sagebrush-bunchgrass sites for a period of 15 years to improve ecological condition; thereafter, natural fire would have to maintain good condition except for a case-by-case limited approval of prescribed burning. These treatments would not be used to increase livestock utilization. The combined treatments would be used on approximately 10% of the wilderness area with only prescribed burning used in the remainder of the area. Treated areas would not exceed one-quarter mile in width. Methods of mechanical and chemical treatment would be limited only to individual trees using chain saws or spot chemical spraying. Trees would be cut at ground level and burned to eliminate a "logged" effect. Juniper trees would also be cut near riparian areas to be used in stabilizing stream banks, thereby improving the ecological condition of riparian areas.

The North Fork Owyhee River Wilderness Area would be managed to provide for an essentially unmodified natural environment providing settings for dispersed recreation and solitude opportunities in accordance with the BLM Wilderness Management Policy and the guidance of the special stipulations. The four Juniper Mountain WSAs would be managed under existing MFP guidelines as described in the No Action/No Wilderness Alternative.

Partial Wilderness Alternative #3 - Special Stipulations for the North Fork Owyhee River WSA, 16-40, Big Willow (Horsehead) Spring WSA, 16-41: Map 6

This alternative recommends that a total of 47,650 acres in the North Fork Owyhee River WSA (41,550 acres), and the Big Willow (Horsehead) Spring WSA (6,100 acres), are suitable for wilderness designation. The wilderness areas would be managed with special stipulations as described under the Partial Wilderness Alternative #2. Treatment areas of the Big Willow Wilderness Area would be less than 7% of the area's land base; treatment areas of the North Fork Owyhee River Wilderness Area would be 10% as in Partial Wilderness Alternative #2.

B. FORMULATION OF ALTERNATIVES

The BLM Wilderness Study Policy calls for the formulation and evaluation of alternatives ranging from resource protection to resource production. Therefore, the alternatives assessed in this Amendment/EIS include (1) the no action alternative; (2) the no wilderness alternative; (3) the all wilderness alternative; and (4) three partial wilderness alternatives.

In this planning amendment, the no action and no wilderness alternatives are equivalent choices. Both advocate a continuation of the present resource management plan and the recommendation of the lands as nonsuitable for wilderness.

The all wilderness alternative represents the maximum possible acreage that could be recommended as suitable for wilderness designation.

Partial wilderness alternatives can make suitable or non-suitable recommendations ranging between the all wilderness and no action alternatives. Partial alternatives can recommend as suitable something less than the entire acreage of one WSA, something less than the entire acreage of all WSAs, the entire acreage of one or more WSAs, or a combination of these possibilities.

The partial wilderness alternatives for this Amendment/EIS were developed by evaluating possible combinations and configurations of the five WSAs. If all the alternatives resulting from combining one or more WSAs in their entirety as wilderness were considered, there would be 120 possible alternative combinations. Adding to these combinations a number of alternative boundary adjustments for each WSA, the number of possible alternatives would be staggering. However, the four Juniper Mountain WSAs have similar wilderness characteristics, resource values, and management considerations. The similarity of these WSAs would normally preclude recommending any one WSA as more or less suitable for wilderness than another. Boundary adjustments to reduce resource conflicts (vegetation manipulation) would result in proposed wilderness areas of insufficient size and configuration to manage effectively as wilderness. However, in response to public comment, consideration was given to providing special stipulations in wilderness legislation which would reduce conflicts between wilderness management policies and vegetation manipulation (prescribed burning combined with mechanical and chemical methods). Such stipulations would be acceptable in areas where treatments would be limited to a small percentage of the areas: such as in WSA 16-41. This WSA is less than 7% treatable whereas the other Juniper Mountain WSAs are 28-41% treatable. The entire area of treatable land would not require mechanical or chemical treatment. Treatment could also be accomplished with only prescribed burning in some of the area.

The North Fork Owyhee River WSA has wilderness values and some other resource values that differ from the Juniper Mountain areas. Its larger size, longer canyon systems, and diversity of landforms provide more outstanding opportunities for solitude and primitive recreation. Poor soils limit rangeland enhancement options in some portions while other areas provide habitat for endangered or sensitive plant species. Because of the contrast between the North Fork Owyhee River and the Juniper Mountain WSAs, the alternative to recommend the North Fork Owyhee River as suitable for wilderness and the Juniper Mountain areas as nonsuitable warrants consideration.

Possible alternative boundaries for the North Fork WSA were also evaluated for manageability adjustments and to mitigate conflicts between wilderness designation and vegetation manipulation to improve the ecological condition of plant communities. In response to public comment during the scoping process, alternate boundaries were evaluated that excluded those areas with the highest potential for widespread vegetation manipulation by mechanical and chemical means from those which could achieve good ecological condition through a combination of prescribed burning and limited mechanical and chemical treatments. The North Fork WSA is about 19% treatable. However, removing the highly treatable areas which would require widespread mechanical and chemical treatment, the remaining area could be treated with prescribed burning and some mechanical and chemical treatments. About 10% of the remaining area could be treated with mechanical and chemical methods in accordance with special stipulations to reduce conflicts between wilderness management policy and vegetation manipulation.

Other Alternatives Considered

The Owyhee Cattlemen's Association in conjunction with the Owyhee County Commissioners proposed an alternative to both wilderness designation and special recreation management areas for each of the five WSAs. Their alternative identified "Sensitive" or "Unique Areas" for the North Fork Owyhee River Canyon and the major canyons of Juniper Mountain. These areas would be managed by a cooperative agreement between BLM and Owyhee County. Because this alternative calls for no wilderness designation, it has been addressed in the No Action/No Wilderness Alternative. Since the No Action/No Wilderness Alternative has been selected as the proposed action, the identification of "Sensitive" or "unique areas" will be addressed in the recreation management plans for both SRMAs. The management plans will determine the size, location, and management direction for the SRMAs. Specific boundaries and management policies for designated areas within the SRMAs will be developed during activity planning and are not fixed as a result of the existing MFP decision or this Amendment/EIS.

C. EVALUATION OF WILDERNESS STUDY AREAS

The evaluation of WSAs was based upon a close examination of a number of factors including the BLM wilderness policy, the planning criteria and quality standards, and the issues and concerns outlined in Chapter II of this document. An overview of these factors is as follows.

Criterion No. 1: Evaluation of Wilderness Values

1. Mandatory Wilderness Characteristics:

   a. Naturalness - The intensive inventory and study has documented that less than 2% of any of the five WSAs is minimally impacted by imprints of man within the areas and less than 3% by external influences. The WSAs appear to be affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. The amount of total acreage impacted within each WSA is approximately as follows:

WSA 16-40	2,450 acres	5%
WSA 16-41	80 acres	1%
WSA 16-42	90 acres	1%
WSA 16-45	230 acres	2%
WSA 16-47	90 acres	1%

   The partial wilderness alternatives for WSA 16-40, North Fork Owyhee River, eliminate the impact of external influences (3%).

   b. Opportunities for Solitude or Primitive Recreation - The intensive inventory and study have documented that all five WSAs have outstanding opportunities for solitude and for primitive recreation. However, the North Fork Owyhee River WSA has higher quality wilderness characteristics than those of the Juniper Mountain WSAs either individually or collectively. Its larger size and diversity of landforms provide more outstanding opportunities for solitude and primitive recreation. The major canyon systems are larger and longer as well as more scenic. The larger expanses of climax juniper forests and rock outcrops provide a greater abundance of beautiful secluded natural landscapes.

   c. Size - The five WSAs range in size from 6,210 acres to 49,470 acres. The average size of more than 165 designated wilderness areas in the National Wilderness Preservation System (NWPS) (excluding Alaska) is about 90,000 to 100,000 acres. However, over 80% of the more than 16 million acres in the NWPS (excluding Alaska) are contained in only about 40 wilderness areas, including the River of No Return and Selway-Bitterroot Wilderness Areas in central Idaho. Without these large areas the more representative average wilderness size is 22,400 acres. Nationally, the average size of BLM WSAs is 25,650 acres.

2. Special Features or Supplemental Values:

   a. Ecological Values - All four Juniper Mountain WSAs generally have low ecological value because of the widespread poor condition of plant communities outside of canyon areas. The North Fork Owyhee River WSA generally has poor condition also; however, it has sagebrush species which are sensitive (Owyhee sagebrush) and endangered (Packard's sagebrush), and uncommon species of lupine (Dwarf Lupine) and primrose (Cusick's primrose). The sensitive sagebrush species has a Research Natural Area recommendation associated with it. The endangered sagebrush species was located throughout the Owyhee River canyons in limited numbers during the wilderness study. The canyonlands of the five WSAs are generally in fair condition.

b. Scenic Values - The North Fork Owyhee River Canyon and portions of the major canyons of Juniper Mountain are of exceptional scenic quality. The WSAs are generally of high scenic quality.

c. Wildlife Values - The WSAs all provide habitats for one or more "sensitive" wildlife species. The North Fork and Middle Fork Owyhee River WSAs support populations of river otter and red-banded trout. All five WSAs provide habitat for bobcat. However, only the North Fork Owyhee River WSA is large enough to protect a substantial portion of the habitat of this wide-ranging species.

3. Multiple Use Benefits:

There are scenic resource benefits which only wilderness designation of the WSAs would ensure. Wilderness designation would not ensure any additional benefits to other multiple resource values or uses which could not already be ensured by the existing Owyhee MFP (See Chapter III, Section E, and Chapter V). Only a modification of the BLM Wilderness Management Policy to incorporate special stipulations for vegetation manipulation could provide some additional benefits.

4. Diversity in the National Wilderness Preservation System:

a. Ecosystem Representation - The five WSAs lie within the Intermountain Sagebrush Province/Sagebrush Steppe ecosystem. This ecosystem is 3130-49 in the Bailey-Kuchler system (see Bailey, R.G., Kuchler, A.W., 1966, Potential Natural Vegetation of the United States, USDI, Geological Survey) which was utilized throughout the Forest Service RARE II process. This ecosystem is widespread over much of southern Idaho, eastern Oregon and Washington, and portions of northern Nevada, California and Utah (Map 9). Designated or potential wilderness areas within the ecosystem including the five WSAs under study are listed below.

Status	Acres	Units
Designated Wilderness		
USFS (Nevada)	6,483	1
USFS (California)	28,062	1

Status	Acres	Units
Administratively Endorsed		
USFS (California)	400	1
FWS (Nevada)	341,500	8
FWS (Oregon)	15,500	1
Other Study Areas		
USFS	34,570	4
BLM (including WSAs with juniper component)	4,412,477	145

Juniper forests are a component of the Sagebrush Steppe ecosystem within some of the units listed above including the five WSAs under study in this document. There are 26 other WSAs totalling 799,939 acres identified as having the juniper forest component. These areas are:

California:		
020-211	Tule Mountain	16,950 acres
020-311	Tunnison Mountain	21,460 acres
020-619	Buffalo Hills	47,315 acres
Oregon:		
1-2	Devil's Garden Lava Bed	29,640 acres
1-3	Squaw Ridge Lava Bed	28,320 acres
1-22	Four Craters Lava Bed	12,120 acres
2-23L	Stonehouse	21,000 acres
2-23M	Lower Stonehouse	8,090 acres
2-77B	Mahogany Ridge	27,370 acres
2-85F	South Steins	65,940 acres
2-85G		35,850 acres
2-58H		24,990 acres
2-86E	Blitzen River	52,060 acres
2-86F	Blitzen River	9,380 acres
5-21	Badlands	32,053 acres
5-31A	North Fork	10,745 acres
5-33	South Fork	19,631 acres
5-34	Sand Hollow	8,791 acres
5-35	Gerry Mountain	20,700 acres
5-42A	Hampton Butte	10,600 acres
5-43	Cougar Well	17,315 acres
Nevada:		
020-012/ 621	Poodle Mountain	127,829 acres
020-014	Fox Mountain Range	72,347 acres
020-200	Selenite Mountain	31,920 acres
020-201	Mount Limbo	24,126 acres
020-600	Blue Lakes	23,397 acres

b. Proximity to Boise Population Center: Within One Days Drive of the Boise Standard Metropolitan Statistical Area (Boise SMSA) -All five WSAs under study lie within three to five hours driving time of the Boise population center.

Within five hours drive of Boise there are eight designated wilderness areas totalling 3,297,118 acres (Map 10). These areas are listed below:

Wilderness Area	Agency	Acres
Sawtooth (Idaho)	USFS	217,088
River of No Return (Idaho)	USFS	2,239,000
Hells Canyon (Idaho/Oregon)	USFS	202,919
Jarbidge (Nevada)	USFS	64,827
Eagle Cap (Oregon)	USFS	293,476
Strawberry Mountain (Oregon)	USFS	33,653
Wenaha - Tucannon (Oregon/Wash.)	USFS	112,912
Craters of the Moon (Idaho)	NPS	43,243

There are also 800,601 acres in 11 USFS units and 1 FWS unit which are administratively endorsed for wilderness, and 4,419,707 acres in 20 USFS and 124 BLM units which are under study (Map 10).

c. Geographical Distribution of Wilderness - The existing wilderness areas in the NWPS are geographically concentrated in the Sierra Nevada Mountain Range and Cascade Mountain Range of California, Oregon, and Washington, and in the Rocky Mountains and Continental Divide area of Idaho, Montana, Wyoming, Colorado, and eastern Utah (Map 11). The largest of the nation's wilderness areas (excluding Alaska) are concentrated in northern and central Idaho, eastern Montana, and northwest Wyoming. However, there are very few wilderness areas in Nevada, western Utah, southeast Oregon, and southern Idaho.

A summary of the existing or potential wilderness areas within Idaho including the five WSAs under study are shown below.

Status	Acres	Units
Designated Wilderness		
USFS	3,825,954	5
NPS	43,243	1
Administratively Endorsed		
USFS	1,035,674	20
NPS	22,217	1
Other Study		
USFS	640,924	11
BLM	1,710,707	67

Criterion No. 2: Manageability of WSAs as Designated Wilderness

The study has determined that each of the WSAs can be managed in the long term as designated wilderness to protect its wilderness characteristics and supplemental values. The manageability of each WSA or a grouping of WSAs can be improved by adjusting the wilderness boundaries away from portions of the WSA boundaries and through the acquisition (exchange) of state inholdings as shown in the all wilderness and partial wilderness alternatives. Boundary adjustments would enhance opportunities for wilderness management but they are not considered essential for managing the areas as wilderness providing the lands continue to be managed in the same manner by the State of Idaho. The development of the inholdings would greatly diminish the wilderness values of the areas.

Management to maintain or improve multiple use values and ecological values, however, may not be feasible without special stipulations from Congress since many of the multiple use objectives are in part dependent upon restoring good ecological condition through vegetation manipulation. Reservations regarding wilderness management and its impact on the ability to manage these areas for good condition are discussed in Chapter V.

D. RELATIONSHIP OF ALTERNATIVES TO NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) GOALS

The alternatives (including the proposed action) considered in this Amendment/EIS all achieve the requirements of NEPA and other environmental laws and policies. Each of the alternatives is designed to use practicable means to create and maintain conditions under which man and nature can exist in productive harmony. In this context there are no significant differences among the alternatives being considered.

E. SUMMARY OF THE WILDERNESS STUDY ANALYSIS

A summary of the wilderness study analysis including the environmental consequences of each land management alternative is presented in the Table III-1 located on the following pages.

TABLE III-1: SUMMARY OF WILDERNESS STUDY ANALYSIS

No Action/No Wilderness Alternative (Proposed Action)	All Wilderness Alternative (WSAs 16-40, 41, 42, 45, 47)	Partial Wilderness Alternative #1 (WSA 16-40)	Partial Wilderness Alternative #2 (WSA 16-40)	Partial Wilderness Alternative #3 (WSA 16-40, 41)
QUALITY STANDARD #1 - MINERALS AND ENERGY: RELATES TO ISSUE 3 (CHAPTER II)				
Minerals - Mineral inventories conducted by the Boise District during the wilderness study show nominal values in all WSAs; therefore, no significant impact in any alternative.				
Energy - There are currently no known oil and gas or geothermal reserves in the WSAs, nor any applications for leases; therefore, no significant impact in any alternative.				
QUALITY STANDARD #2 - IMPACTS ON OTHER RESOURCES: RELATES TO ISSUES 1, 2, 3, 4, 5 (CHAPTER II)				
Vegetation - Issues 2, 4, 5				
Ecological conditions of plant communities improved by vegetative manipulation and grazing management practices, seral juniper encroachment curtailed, and seral juniper removed. Ecologically good areas maintained; fair and poor areas improved.	Ecological condition of plant communities to remain stable or decline. Vegetation manipulation limited to case-by-case prescribed burning. Reestablishment of sagebrush-bunchgrass communities hindered. Climax and seral juniper stands remain dominant.	Same as All Wilderness Alternative for WSA 16-40. Other WSAs, same as No Action/No Wilderness Alternative.	Same as Partial Wilderness Alternative #1 except use of mechanical and chemical treatment with burning within 15 years of designation to re-establish sagebrush-bunchgrass communities and improve ecological condition.	Same as Partial Wilderness Alternative #2 but includes WSA 16-41.
Soils and Watershed - Issues 2, 4, 5				
Improved range via developed grazing distribution systems. Land treatments would cause short-term disturbance but long-term improvement. Increase in water flows and availability. *Continuation of soil surface disturbance activities. Channel erosion reduced; water quality	Land treatment limited to one time prescribed burning. Developments to improve grazing limited. Water developments limited or restricted. No water yield improvement structures. *Some restrictions to soil surface disturbing activities. Channel erosion remain unchecked. Increased	WSA 16-40, same as All Wilderness Alternative. Same as No Action/No Wilderness Alternative for remainder of WSAs.	Watershed condition improved slightly in all WSAs. Ground cover to increase and reduce sheet erosion. Water flows and availability to increase.	Same as Partial Wilderness Alternative #2.

No Action/No Wilderness Alternative (Proposed Action)	All Wilderness Alternative (WSAs 16-40, 41, 42, 45, 47)	Partial Wilderness Alternative #1 (WSA 16-40)	Partial Wilderness Alternative #2 (WSA 16-40)	Partial Wilderness Alternative #3 (WSA 16-40, 41)
Soils and Watershed (Continued)				
improved via bank stabilization. Sheet erosion reduced via improved ground cover.	ground cover expected to reduce sheet erosion.			
* ORV activities, land treatments, construction, etc.				
Range - Issues 1, 3				
Vegetation manipulation and grazing management could increase current active preference (AUMs) by 38% overall. Construction of improvement projects to facilitate grazing systems implementation.	Current active preference (AUMs) could increase by 22% overall. Prohibition on vegetation manipulation for range resources. Restrictions on new range improvements. May be difficult to implement grazing systems in affected allotments.	A 34% overall increase in current active preference could be realized. Prohibition on vegetation manipulation for range resource in WSA 16-40; also restriction on new range improvements. May be difficult to implement grazing systems in affected allotments.	Same as Partial Wilderness Alternative #1.	Same as Partial Wilderness Alternative #1, except prohibitions and restrictions also apply to WSA 16-41.
Scenic Resources - Issue 5				
Land treatment would affect 1 of every 4 acres of most boundary roadside areas. Natural landscapes would be altered particularly in Juniper Mountain area. Direct treated areas would drop from B to C scenery category.	Enhancement and preservation of boundary roadside and interior juniper forest scenery in all areas would occur. One-time burning done to re-establish fire dependent ecosystem. Class A scenery preserved in N.F. Owyhee Canyon and parts of Juniper Mountain. Class B scenery in remaining areas.	N.F. Owyhee River areas same as All Wilderness Alternative. Remaining areas, same as No Action/No Wilderness Alternative.	WSA 16-40 same as All Wilderness Alternative. Other WSAs, same as No Action/No Wilderness Alternative.	Same as All Wilderness Alternative #2 for 16-40 and 16-41. Other WSAs, same as No Action/No Wilderness Alternative.
Wildlife - Issues 2, 4, 5				
Vegetative manipulation (chemical, mechanical, and burning), water developments, fencing, and streambank projects would improve wildlife habitats. Deer	Limited vegetation manipulation, water developments, fencing, and streambank projects would only stabilize or provide limited slight improvement to	In WSA 16-40, same as All Wilderness Alternative. In other WSAs, same as No Action/No Wilderness Alternative. Deer populations could increase by 325 animals.	Same as No Action/No Wilderness Alternative.	Same as No Action/No Wilderness Alternative.

No Action/No Wilderness Alternative (Proposed Action)	All Wilderness Alternative (WSAs 16-40, 41, 42, 45, 47)	Partial Wilderness Alternative #1 (WSA 16-40)	Partial Wilderness Alternative #2 (WSA 16-40)	Partial Wilderness Alternative #3 (WSA 16-40, 41)
Wildlife (Continued)				
populations could increase by 500 animals. Improved in-stream cover and migration for fisheries. Improved riparian habitat. More forage available for wildlife.	wildlife habitats and populations. Slight improvement in forage for wildlife.			
Recreation - Issues 2, 3, 5				
Juniper Mountain (94,000 acres) and N.F. Owyhee River (57,000 acres) SRMAs to provide primitive/semi-primitive and non-primitive opportunities. Recreational motorized vehicle use to continue on existing roads/ways. Some recreation improvements may be provided. Moderate increases in use expected. Improvement in hunting opportunities expected.	99,725 acres managed for protection of wilderness values. Increased use seen for hiking, backpacking, nature study, etc.; could predominate over hunting. Shift in type and season of recreation use seen. 15 and 20 miles of low-standard roads/ways in N.F. Owyhee River area and Juniper Mountain respectively closed to recreational motorized vehicle use.	47,955 acres of N.F. Owyhee River managed for wilderness. Juniper Mountain (94,000 acres) SRMA to provide primitive/semi-primitive and non-primitive opportunities. Use to increase as in All Wilderness Alternative. 14 miles of low-standard roads/ways closed to recreational motorized vehicle use. Hunting opportunities increase.	Similar to Partial Wilderness Alternative #1. 10 miles of low-standard roads/ways closed to recreational motorized vehicle use. Increase in hunting opportunities.	Similar to Partial Wilderness Alternative #2.

Lands - Issues 2, 5 - No significant impact from any of the alternatives. Land exchanges will continue to be negotiated with or without wilderness; access and desired resource uses will continue.

Cultural Resources - Issues 2, 5 - No significant impact from any of the alternatives.

QUALITY STANDARD #3 - IMPACTS OF NON-WILDERNESS DESIGNATION ON WILDERNESS VALUES: RELATES TO ISSUE #2 (CHAPTER II)

No designated wilderness. Possibly no juniper component of sagebrush-steppe ecosystem represented in NWPS. Loss of some solitude opportunities because of juniper cutting. Some	NONE	Same as All Wilderness Alternative for 47,955 acres in WSA 16-40. Juniper Mountain WSAs same as No Action/No Wilderness Alternative.	Same as Partial Wilderness Alternative #1 but wilderness reduced to 41,550 acres in WSA 16-40.	Same as Partial Wilderness Alternative #1 with 41,650 acres protected in WSA 16-40 and 16-41.

No Action/No Wilderness Alternative (Proposed Action)	All Wilderness Alternative (WSAs 16-40, 41, 42, 45, 47)	Partial Wilderness Alternative #1 (WSA 16-40)	Partial Wilderness Alternative #2 (WSA 16-40)	Partial Wilderness Alternative #3 (WSA 16-40, 41)
QUALITY STANDARD #3 (Continued)				
long-term loss of naturalness. Significant short-term loss of naturalness in streams and on land areas where land treatments, etc. are applied. Primitive recreation opportunities diminished because of land treatments and possible recreation developments. Improvement of ecological condition but potential loss of ecological values due to seeding of non-native species.				

QUALITY STANDARD #4 - PUBLIC COMMENT: RELATES TO ALL ISSUES (CHAPTER II)

Of the 27 individuals or groups who wrote letters during the scoping process, 24 specifically responded to issues and planning criteria. Of the responses, 11 reflected interest in wilderness designation for the WSAs while 16 were against any wilderness designation. Public comment will be fully incorporated into the preliminary final Owyhee Wilderness Amendment/EIS at the close of the public comment period.

QUALITY STANDARD #5 - LOCAL SOCIAL AND ECONOMIC EFFECTS: RELATES TO ISSUE #3 (CHAPTER II)

Economic Effects

	No Action/No Wilderness Alternative (Proposed Action)	All Wilderness Alternative (WSAs 16-40, 41, 42, 45, 47)	Partial Wilderness Alternative #1 (WSA 16-40)	Partial Wilderness Alternative #2 (WSA 16-40)	Partial Wilderness Alternative #3 (WSA 16-40, 41)
AUM Increase (above current alloc.)	13,891	10,400	12,716	12,799	12,709
Range Improvement Cost:					
Structural	$328,700	$328,700	$328,700	$328,700	$328,700
Land Treatments	$394,700	$332,500	$365,900	$370,600	$369,300
Annual Rancher Income Gains:					
Year 5	$ 62,000	$ 44,600	$ 56,000	$ 56,000	$ 56,000
Year 20	$203,000	$152,000	$186,000	$187,000	$186,000

	No Action/No Wilderness Alternative (Proposed Action)	All Wilderness Alternative (WSAs 16-40, 41, 42, 45, 47)	Partial Wilderness Alternative #1 (WSA 16-40)	Partial Wilderness Alternative #2 (WSA 16-40)	Partial Wilderness Alternative #3 (WSA 16-40, 41)
Economic Effects (Continued)					
Secondary Impacts:					
RI Costs Spent in Owyhee County	$ 90,000	$ 83,000	$ 87,000	$ 87,000	$ 87,000
Secondary Income Gains:					
Year 5	$ 25,000	$ 18,000	$ 23,000	$ 23,000	$ 23,000
Year 20	$ 81,000	$ 61,000	$ 74,000	$ 75,000	$ 74,000
Benefit/Cost Ratio	1.60	1.68	1.67	1.67	1.66

Social Effects

It is unlikely that either the proposed action or any of the alternatives would measurably affect the social systems of Owyhee County and the region.

QUALITY STANDARD #6 - CONSISTENCY WITH OTHER PLANS

No formally approved land management plan affects the WSAs other than the Owyhee Management Framework Plan which is under consideration for amendment in this document.

F. SELECTION OF THE PROPOSED ACTION

The selection of the proposed action was based upon an analysis of the planning criteria and quality standards. No weighing or special consideration of any one element of the criteria or standards was used.

Although the WSAs possess outstanding opportunities for both solitude and primitive recreation (particularly the N.F. Owyhee River WSA) which would make them a recreational asset to the National Wilderness Preservation System (NWPS), wilderness designation would not be in the best interest of multiple use management. Wilderness designation is not considered suitable for any of the WSAs because:

1. Mandatory Wilderness Characteristics

Under the proposed action (No Action/No Wilderness Alternative), the primitive recreation values, including solitude, would be protected in the canyonlands of the WSAs through administratively recognized special recreation management areas. The values in the canyons contribute most to mandatory wilderness characteristics. Once short-term restoration projects have disappeared, the canyonlands will be in better ecological condition and thereby more natural, thus contributing to the protection of primitive recreation values. However, in surrounding areas primitive recreation values would be diminished or lost depending upon the amount of land treatment in an area. The non-canyon areas of the North Fork Owyhee River would generally become semi-primitive areas. The non-canyon areas of Juniper Mountain could become non-primitive areas.

2. Supplemental Values Associated With Wilderness

All supplemental values associated with wilderness within the WSAs, except scenic quality, would receive equal or better protection under the proposed action.

a. Ecological Values - The WSAs are generally in poor ecological condition with no expectation of improvement under wilderness management unless the BLM Wilderness Management Policy is modified to allow for short-term special stipulations to remove juniper. In their present condition, the WSAs would be a poor representation of the Sagebrush Steppe Ecosystem for inclusion in the NWPS.

Removing encroaching juniper forests from sagebrush-bunchgrass openings, and restoring and maintaining plant communities in good condition is the primary objective of management in the affected areas. Short-term land treatments could achieve the desired improvement in areas where the amount of potentially treatable land is relatively small without the long-term loss of wilderness characteristics (naturalness, primitive recreation, and solitude). However, the reliance upon natural fires to maintain openings and good condition may be difficult to achieve in 15 years. If conditions favorable for the re-establishment of sagebrush-bunchgrass communities and associated natural fire pattern cannot be provided within 15 years, the juniper forests could once again increase and reduce the ecological condition of the WSAs. Juniper could invade into open sagebrush-bunchgrass areas even if grazing management maintains the openings in good condition, unless periodic fires remove the invading trees. When another land management alternative (proposed action) is available which would ensure the short-term improvement and long-term maintenance of plant communities, wilderness designation is not appropriate.

Furthermore, wilderness areas lying within portions of many of the affected allotments could hinder the implementation of intensive grazing systems which are important to achieving the desired improvement in range condition and all associated multiple use benefits.

b. Wildlife Values - The proposed action would provide better protection to "sensitive" wildlife species because of its greater flexibility in habitat restoration and improvement projects.

3. Multiple Use Benefits

Other than the wilderness resource, the scenic resource is the only resource which would be ensured benefits only by wilderness designation. Scenic quality would be degraded for over 20 years by the proposed action. All other resources would receive relatively equal or greater potential benefits under the proposed action. Only a modification in the BLM Wilderness Management Policy to incorporate special stipulations for vegetation manipulation could provide additional benefits to some resources. However, at the same time, wilderness designation would reduce potential benefits to some resources. Overall, the proposed action provides the flexibility necessary to ensure the most benefits for the most resources.

4. Diversity in the NWPS

A review of designated and potential wilderness shows that there are already over 3.8 million acres of designated wilderness in Idaho, 3.2 million acres of designated wilderness in Oregon, Washington, California, and Nevada which lie within five hours driving time (one day's drive) of Boise, and 4.8 million acres of potential wilderness within the Sagebrush Steppe ecosystem (.8 million with the juniper forest component).

Considering the amount of available or potential wilderness shown above, suitable wilderness recommendations should not include areas in poor ecological condition when there is a lower probability of improving condition under BLM Wilderness Management Policy.

5. Manageability

The WSAs are manageable as wilderness areas to protect mandatory wilderness characteristics. However, such management would not ensure the maintenance or improvement of multiple use values, including some supplemental wilderness values, as well as the proposed action because of the reduced flexibility in management options.

CHAPTER IV
DESCRIPTION OF EFFECTED ENVIRONMENT

The description of the environment presented in this chapter is confined to those resources and/or environmental factors which are affected by the alternatives or were identified as issues of concern to the public. Those resources most affected by the alternatives are described in greater detail. The environmental factors not affected by the alternatives include air quality, geology, and climate.

The resource characteristics within all WSAs are very similar. Therefore, resource descriptions refer to all WSAs unless specified. Specific resource characteristics of individual WSAs are addressed under each resource heading.

A. WILDERNESS CHARACTERISTICS

The BLM completed a wilderness inventory of the areas in 1980 using procedures outlined in the BLM Wilderness Inventory Handbook (BLM, 1978). The purpose of the inventory was to identify those areas (Wilderness Study Areas) which contained wilderness characteristics and could potentially be included in the National Wilderness Preservation System. The inventory determined that the four Juniper Mountain areas and the North Fork Owyhee River meet the wilderness criteria established by the Wilderness Act of 1964 (Table IV-1).

The Juniper Mountain WSAs are adjoining areas located on the slopes of a juniper covered mountain. Each of the WSAs is dissected by one or more V-shaped canyons ranging from 100 to 300 feet in depth. Interspersed with dense juniper forests are open sagebrush meadows. The rough broken terrain characteristic of the higher elevations gradually evolves into sagebrush covered basins and plateaus on the lower slopes of the mountain. The North Fork of the Owyhee River is several miles north of Juniper Mountain. Much of the north and east portions are covered by juniper forests, angular rock outcroppings, and canyons. South of the river a large basalt tableland is ringed by crumbling basalt slopes. The north side of this "Pleasant Valley Table" is marked by the sheer walls and rock pinnacles of the 300-foot deep North Fork Owyhee River Canyon.

Throughout the juniper dominated landscapes of each WSA, opportunities to achieve solitude are outstanding. The convoluted terrain, deep canyons, rock outcroppings, and dense juniper forests create a strong sense of isolation from the sights and sounds of fellow man.

The same topographic and vegetative features that offer outstanding solitude also provide each WSA an ideal backdrop for a variety of outstanding wilderness-related recreational activities. Sightseeing, day hiking, backpacking, nature photography, wildlife viewing, horseback riding, and hunting opportunities abound.

The forces of nature predominate in each of the WSAs with man's imprints limited to isolated features that can only be seen from a

TABLE IV-1: SUMMARY OF WILDERNESS CHARACTERISTICS IN WSAs

		Physical Features Affecting Wilderness Characteristics			
			Outstanding Opportunities		
WSA Number	WSA Size and Configuration	Imprints on Naturalness (Within and Adjacent)	Solitude	Primitive Recreation	Supplemental Values
16-40	49,470 acres 2 - 10 miles wide 13.75 miles long 5 cherry stem roads totalling 11 miles 3 state inholdings	8.5 miles of ways 17+ miles of fence (plus numerous gap fences 2 abandoned log cabins 12 small water developments 1 metal building-corral-spring complex 1 ranch site 1 abandoned corral	Large size Good configuration Topographic screening due to numerous rugged hills, canyons, draws, rock outcrops and swales Vegetative screening due to juniper and riparian 30+ miles of canyons minimize corridor effect Dispersion potential due to numerous canyons and draws Limited external influences*	Large size Exceptionally scenic Diversity of landforms including vertical-walled canyons, rugged hills, flat plateaus; dense juniper and sagebrush Reasonable mobility throughout WSA due to numerous canyons and draws 30+ miles of canyons reduce any sense of confinement in canyons Variety of recreation opportunities	Scenic values Wildlife values Geologic values Ecological/ Scientific values
16-41	6,210 acres 5 miles long .25 - 3.25 miles wide No inholdings	.75 miles of ways 1.25 miles of fence 1 small water development	Topographic screening due to rugged, radiating canyons (7+ miles) Vegetative screening due to juniper and riparian	Exceptionally scenic Diversity of landforms, including vertical-walled canyon, plateaus, rugged rock outcrops and hills; juniper and sagebrush	Scenic values Wildlife values Geologic values

TABLE IV-1: SUMMARY OF WILDERNESS CHARACTERISTICS IN WSAs (Cont)

WSA Number	WSA Size and Configuration	Physical Features Affecting Wilderness Characteristics			Supplemental Values
		Imprints on Naturalness (Within and Adjacent)	Outstanding Opportunities		
			Solitude	Primitive Recreation	
16-41 (cont)			Dispersion potential due to radiating canyons and surrounding terrain Minimal external influences*	Reasonable mobility throughout WSA due to radiating canyons and surrounding terrain Variety of recreation opportunities	
16-42	10,780 acres 7 miles long 1 - 4 miles wide 2 cherry stem roads totaling 1.25 miles No inholdings	1.6 miles of ways 3.25 miles of fence 1 small water development	Topographic screening due to rugged canyons (10+ miles) and mountainous areas Vegetative screening due to juniper Dispersion potential due to radiating canyons and numerous surrounding draws Minimal external influences*	Exceptionally scenic in some areas Diversity of landform including rock escarpment, vertical-walled canyon, V-shaped canyons, ridges, flats; juniper and sagebrush Reasonable mobility throughout WSA due to radiating canyons and numerous surrounding draws Variety of recreation opportunities	Scenic values Geologic values Wildlife values
16-45	14,180 acres 7.5 miles long 1 - 4 miles wide	4.5 miles of ways 2.5 miles of fence 2 small water developments 1 abandoned log cabin	Topographic screening due to rugged canyons (10+ miles) and mountains Vegetative screening due to juniper and riparian	Diversity of landform including vertical-walled canyon, V-shaped canyon, mountains, hills, flats; juniper and sagebrush	Scenic values Geologic values Wildlife values

TABLE IV-1: SUMMARY OF WILDERNESS CHARACTERISTICS IN WSAs (Cont)

WSA Number	WSA Size and Configuration	Physical Features Affecting Wilderness Characteristics			Supplemental Values
			Outstanding Opportunities		
		Imprints on Naturalness (Within and Adjacent)	Solitude	Primitive Recreation	
16-45 (cont)	2 cherry stem roads totalling 1 mile 1 state inholding		Dispersion potential due to numerous side canyons or draws 10+ miles of canyon reduce corridor effect Minimal external influences*	Exceptionally scenic in some areas Reasonable mobility throughout WSA due to numerous side canyons or draws Variety of recreation opportunities	
16-47	12,970 acres 6 miles long 2 - 4.75 miles wide No inholdings	4 miles of ways 3.25 miles of fence	Topographic screening due to rugged canyons (10+ miles) and mountains Vegetative screening due to juniper and riparian Dispersion potential due to numerous canyons and draws 12+ miles of canyon reduce corridor effect Minimal external influences*	Diversity of landform including V-shaped canyon, mountains, basin; juniper and sagebrush Reasonable mobility throughout WSA due to numerous canyon, draws and a rolling basin Variety of recreation opportunities	Wildlife values

*Periodic low flying aircraft are a notable short-term, temporary impact which can be mitigated.

small adjacent area. These infrequently encountered signs of man include vehicle tracks, livestock reservoirs, "developed" springs, fences, and abandoned log cabins. Many of these "man-made" features blend in so well with the surrounding landscape that a casual observer can overlook their man-made origins. For more detail on wilderness characteristics refer to Appendix 1.

Supplemental wilderness values on Juniper Mountain are limited to some areas of high quality scenery and potential habitat for "sensitive" bobcat. The Middle Fork of the Owyhee River also harbors populations of "sensitive" river otter and red-banded trout. In addition to the above ecological values, the North Fork Owyhee River WSA provides habitat for an endangered species of sagebrush, a "sensitive" sagebrush, and an "uncommon" lupine and primrose. The scientific and ecological values of the area populated by the "sensitive" sagebrush have been recognized by the Idaho Natural Areas Coordinating Committee which has recommended that two sections be designated a Research Natural Area. Scenic, ecological, and wildlife values are described in greater detail under their appropriate subheadings; however, it should be emphasized that these are a substantial portion of the wilderness values of the areas as well.

B. VEGETATION

1. Vegetation Description

The Juniper Mountain WSAs and the North Fork Owyhee River WSA lie within the Intermountain Sagebrush Province/Sagebrush Steppe ecosystem. This ecosystem is 3130-49 in the Bailey-Kuchler system (see Bailey, R. G., Kuchler, A. W., 1966, Potential Natural Vegetation of the United States, USDI, Geological Survey). Within these WSAs, the ecosystem has a dense juniper forest component.

Thin to dense forests of western juniper intermingled with rock outcrops and sagebrush areas cover large aspects of the WSAs. Juniper and rock outcrop dominates the major canyon landscapes of all WSAs, the middle and higher elevations of the Juniper Mountain WSAs, and much of the hilly areas of the North Fork Owyhee River WSA. Understory vegetation is often sparse or lacking because of shallow, gravelly soil conditions. The understory which does occur contains grasses, mountain big sagebrush, low sagebrush, and antelope bitterbrush.

Climax juniper forests are found in association with shallow soils in the rocky crags of the large vertical-walled and steep-sloped, V-shaped canyons found in each WSA, and the higher elevations of the Juniper Mountain WSAs. Thin to dense stands of climax juniper are also prevalent among the rimrock breaks of the southern tablelands of the North Fork Owyhee River WSA (Photo 1).

The open sagebrush-bunchgrass areas intermingled with the climax juniper are found in association with deeper and less rocky soils. The encroachment of juniper into these open areas is widespread in each WSA. Stands of seral juniper are slowly eliminating the sagebrush-bunchgrass communities (Photo 2).

The lower elevations of Juniper Mountain are primarily low sagebrush sites. The middle elevations are mostly big sagebrush sites with low sagebrush occurring in association. The encroachment of seral juniper into these low and middle elevation sagebrush-bunchgrass areas is widespread, particularly in the middle elevations. A number of sagebrush sites in the middle elevations have well advanced seral juniper stands (Photo 3). The juniper generally become more widely scattered as elevations drop to the west and south.

Within the North Fork Owyhee River WSA, large expanses of low sagebrush and grass occur on the flat topography making up much of the southern tableland. Juniper are widely scattered in rock outcrop areas and along shallow breaks. Seral juniper invasion is not yet widespread into the sagebrush sites of the tableland (Photo 4).

There are about 25 miles of narrow canyons within the Juniper Mountain WSAs and about 30 miles of narrow sheer-walled canyons within the North Fork Owyhee River WSA. The vegetation on the canyon bottoms along the water courses is known as the riparian zone. The majority of the riparian zone is comprised of wet to semi-wet meadows affected by seasonal high water levels. The remaining portion of the zone is comprised of drier sites located above the seasonal high water levels that are directly affected by cooler temperatures and higher humidity related to the adjacent water flow. Grasses are located on both the drier and wetter sites of the riparian zone. The predominate tree species are willows which generally occupy the wetter sites. Shrub species of willow and Woods rose are found in abundance on the seasonal flood plains. Aspen occasionally occurs immediately adjacent to flood plain areas. Sagebrush species and bitterbrush occupy drier sites adjacent to the riparian zone (Photo 5).

2. Vegetation Condition and Trend

a. Condition:

Vegetation condition is the present state of vegetation of an ecological site in relation to the climax (natural potential) plant community. The achievement of good vegetation condition is the primary objective of BLM multiple use management. Good vegetation condition allows land managers to optimize benefits for range (livestock), wildlife, soils and watershed resources.

The vegetation within the WSAs generally appears natural and contributes to outstanding wilderness characteristics. However, from the standpoint of multiple use resource management and the ecological values of

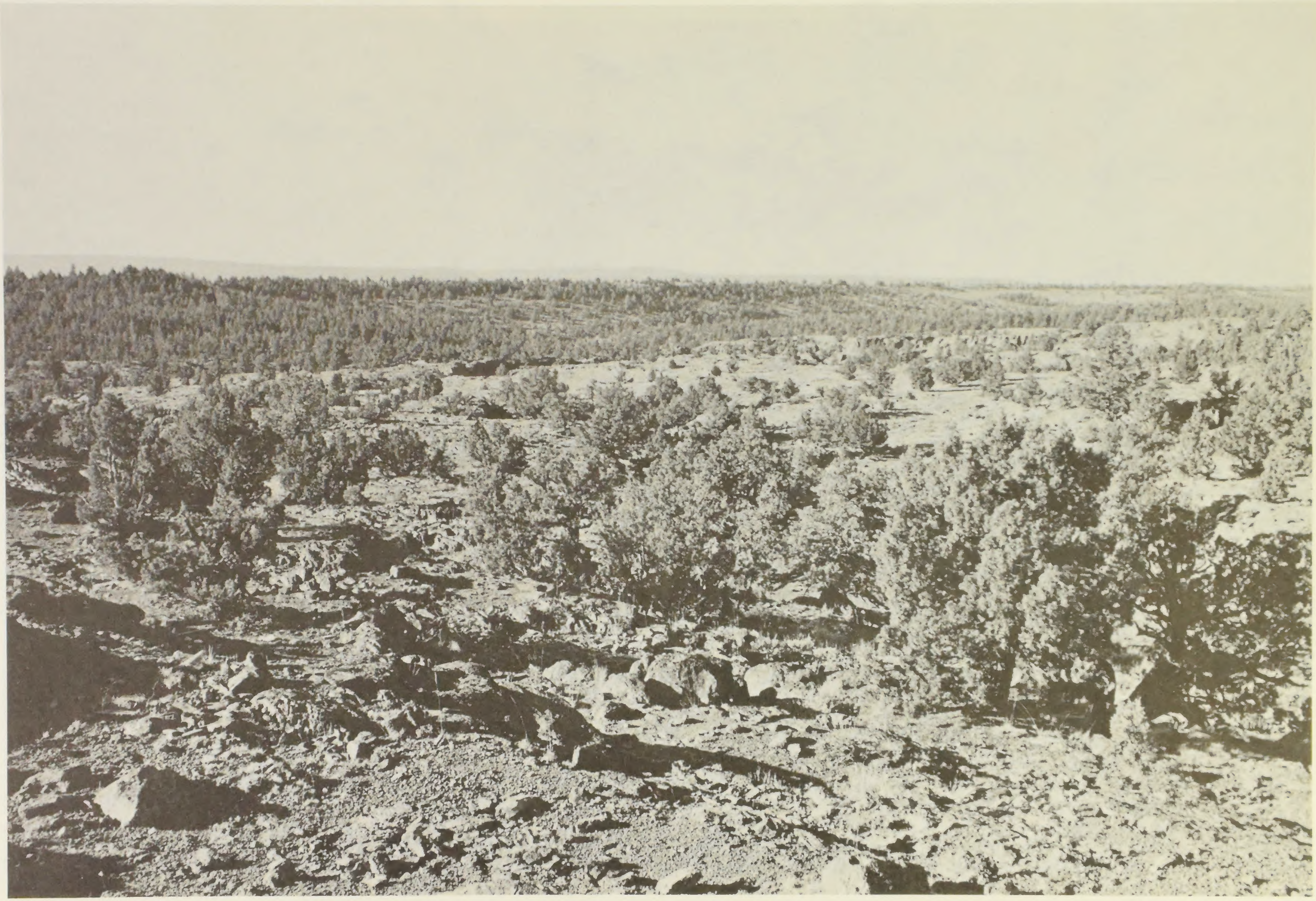

Photo 1: Climax juniper area near the North Fork Owyhee River in WSA 16-40.

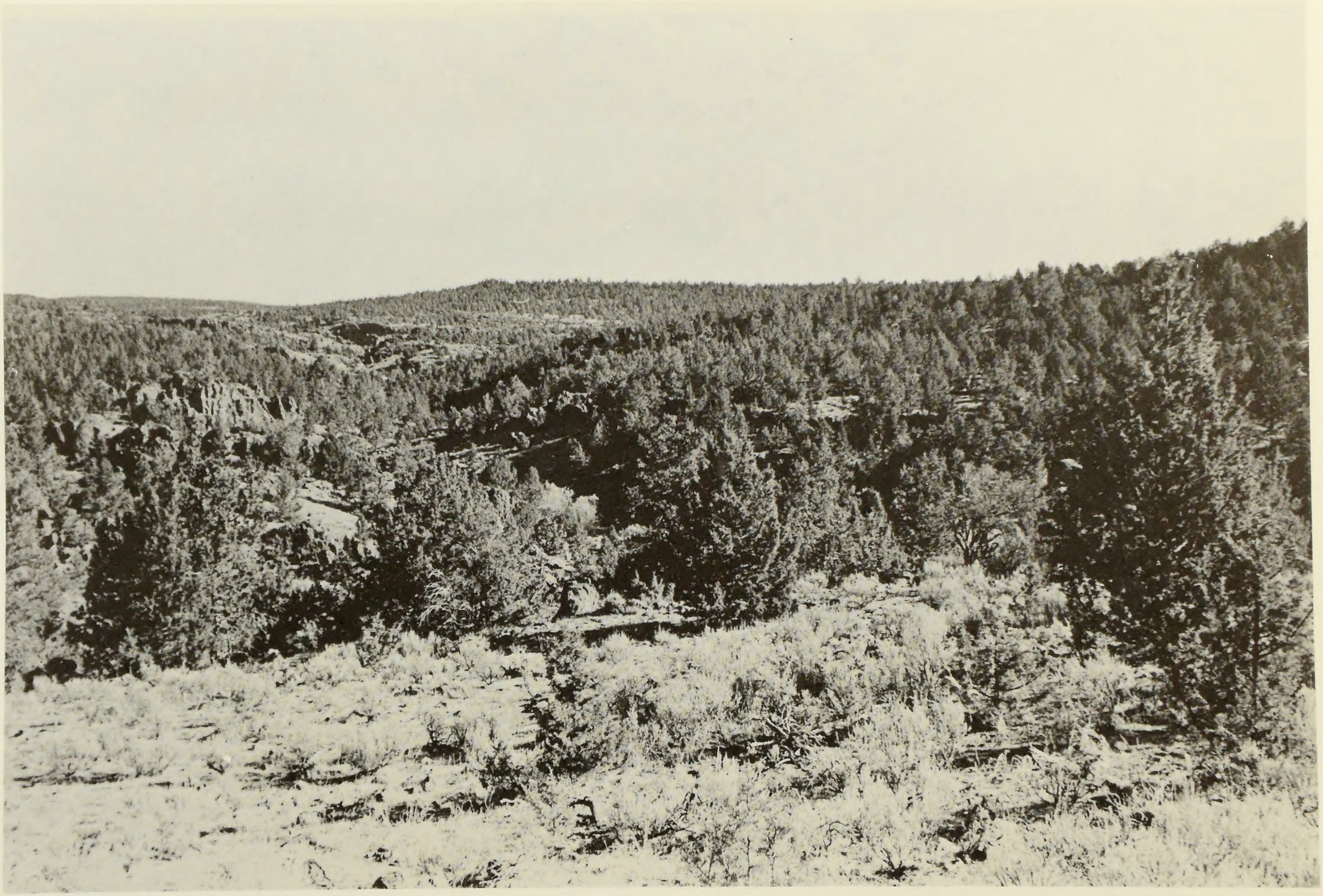

Photo 2: Initial encroachment of juniper forests into sagebrush-bunchgrass areas along the North Fork Owyhee River in WSA 16-40.

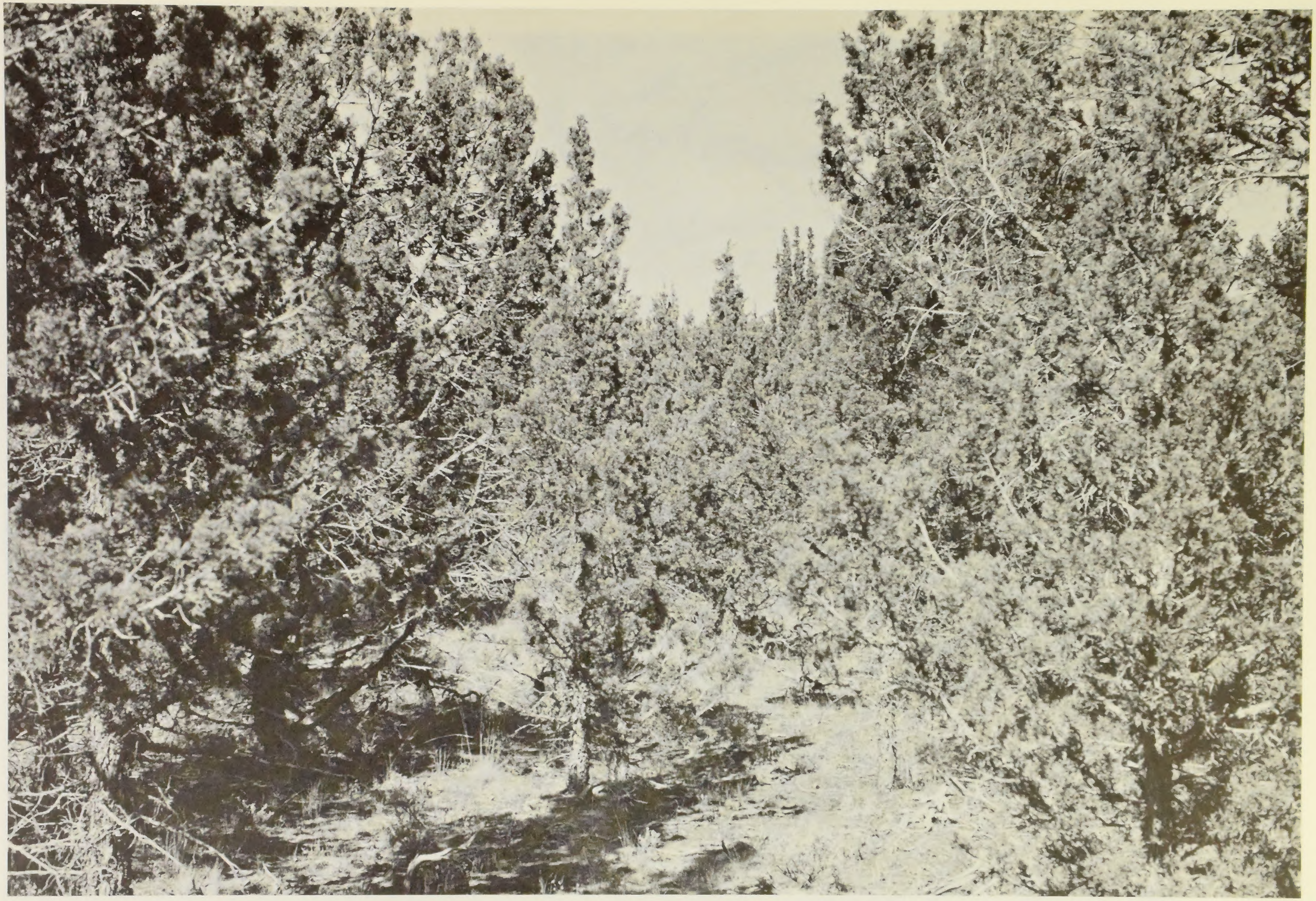

Photo 3: Advanced juniper encroachment into previous sagebrush-bunchgrass area on top of Juniper Mountain in WSA 16-42.

Photo 4: Sagebrush-bunchgrass area of the southern tableland of WSA 16-40.

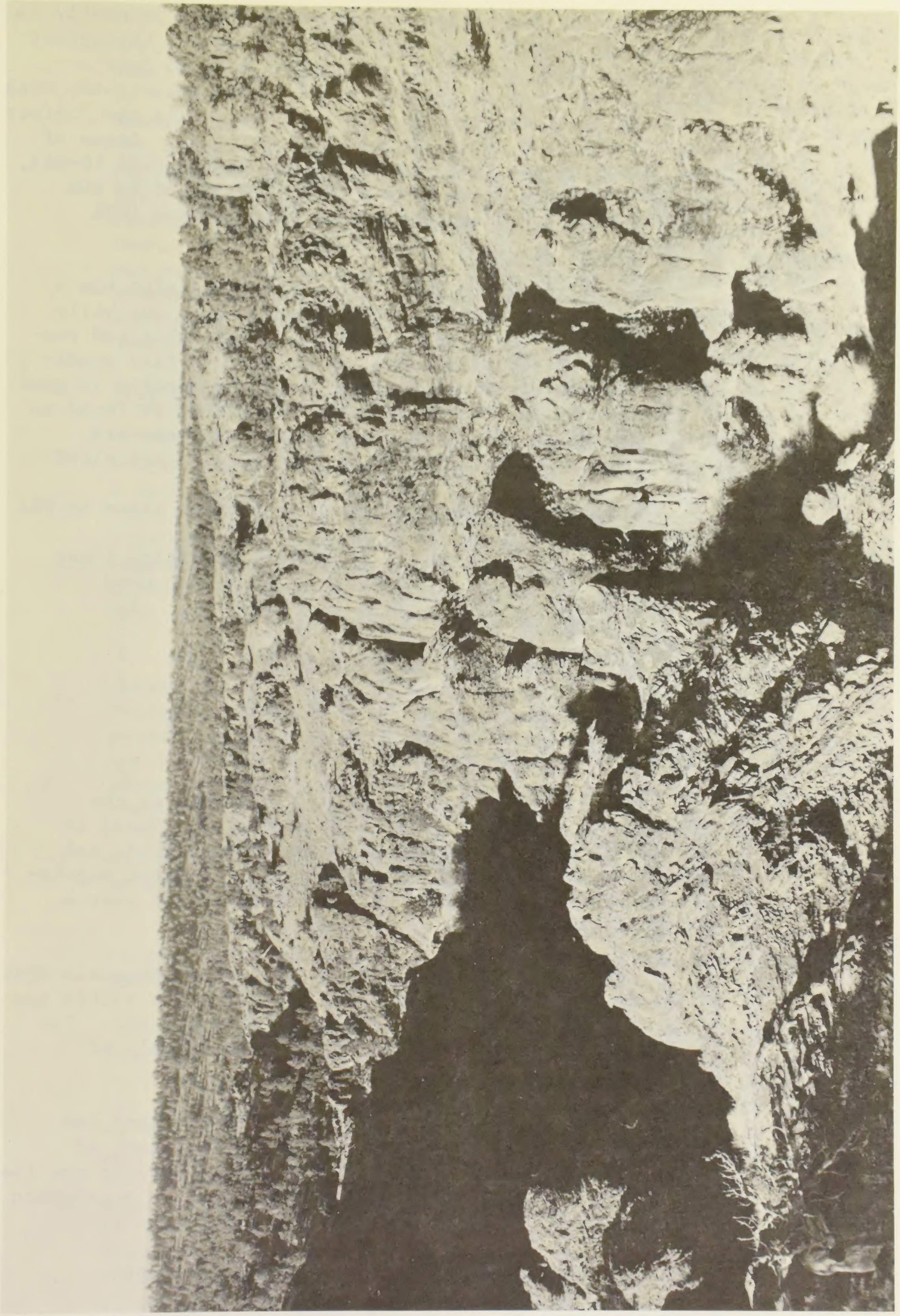

Photo 5: North Fork Owyhee River Canyon in WSA 16-40.

wilderness the vegetation on Juniper Mountain is mostly in poor to fair condition. Poor condition occurs throughout the upper elevations of the mountain. Poor to fair condition is found in the lower and middle elevations, with poor conditions dominating. The canyons within the Juniper Mountain WSAs are generally in fair condition. Areas of good condition are found in Pole Creek Canyon (WSA 16-41), portions of Squaw Creek Canyon (WSA 16-42), and in the vicinity of the Middle Fork Owyhee River Canyon (WSA 16-45).

Most of the North Fork Owyhee River WSA also has a poor vegetation condition. The vegetation in the hilly areas generally has a poor condition. The tableland rim-rock areas and riparian zones are in poor to fair condition. The tableland sagebrush areas are generally in poor to fair condition. Good vegetation condition is found in the southeastern hilly areas and in the southeastern portion and northwest fingers of the southern tableland.

The percent of each vegetation condition class by WSA is shown below:

	Vegetation Condition Class		
	Poor	Fair	Good
WSA 16-40	59	29	12
WSA 16-41	70	15	15
WSA 16-42	78	20	2
WSA 16-45	46	52	2
WSA 16-47	50	49	1

b. Trend:

Trend in vegetation condition is defined as the direction of change in ecological condition. Trend is assessed in terms of "apparent trend" observations and comparison of earlier BLM range studies. Present vegetation condition is a result of a sustained trend over a period of time.

In general, the trend within the Juniper Mountain WSAs is stable to downward. The hilly juniper areas within the North Fork Owyhee River WSA shows a downward trend. The tableland sagebrush areas generally have a stable or downward trend.

The lack of periodic wildfires in the juniper and sagebrush communities and the grazing by livestock of forage species during their critical growth periods are the main factors which have influenced the existing vegetation conditions and trend.

3. Endangered, Threatened, Sensitive, or Uncommon Species

There have been no endangered, threatened, sensitive, or uncommon species identified within the Juniper Mountain WSAs.

Within the North Fork Owyhee River WSA two species of sagebrush that are classified as sensitive or endangered. Owyhee sagebrush (Artemisia papposa), classified as sensitive, is known to occur over a wide area on the southern plateau. A Research Natural Area has been proposed on the southern plateau to study the habitat of the Owyhee sagebrush. Packard's sagebrush (Artemisia packardiae) is on the state of Idaho's endangered list and recommended for federal listing as endangered. This species is located on the vertical cliffs of the North Fork Owyhee River. Dwarf lupine (Lupinus lyallii subsp. subpandens) has been found in the southern tableland along the extreme southern periphery of the WSA. This species is listed as uncommon. Another uncommon species in the rimrock areas of the southern tableland is Cusick's primrose (Primula cusickiana).

4. Fire History and Potential

The N.F. Owyhee River and Juniper Mountain area has evidence of re-occurring fires dating back to the early 1600's. A decline in the number and size of fires has occurred since 1900. This decline is suspected to be a result of effective fire prevention and road development coupled with a reduction of fine fuels (grasses) by livestock grazing. There are indications that a warming-drying climate change since 1870 may also have contributed to the reduction of fine fuel production.

Climax juniper stands occupy rocky sites where fires are unable to burn freely. Seral juniper stand encroachment is evident in sagebrush-bunchgrass communities of deeper, more productive soil sites where topography and soil structure does not limit the spread of fire. Prior to livestock grazing, these sites produced enough fine fuel litter accumulation which, in combination with sagebrush, provided fuel to carry periodic fires. These periodic fires effectively controlled juniper encroachment and allowed for the domination of deeper soil sites by sagebrush-bunchgrass communities.

The significant reduction in periodic fires since 1900 has altered plant succession and severely impaired the ecological potential of sagebrush-bunchgrass communities.

Map 7 illustrates the encroachment of seral juniper into sagebrush-bunchgrass areas. This map is based on soil mapping unit data and the corresponding ecological sites potentials for the occurrence of climax juniper stands. Map areas designated as 60-80% Climax Juniper-Rock Outcrop are localities where potential climax juniper sites comprise 60-80% of soil mapping units, indicating that existing juniper occurrence is as expected and that juniper encroachment is minimal. Areas shown as 30% Climax Juniper-Rock Outcrop have within them a juniper occurrence that is greater than what would be expected. Only 30% of the areas which correspond to the soil mapping units are sites of potential climax juniper, indicating the encroachment of juniper stands into open sagebrush-bunchgrass sites. Within the areas shown as 0-15% Climax Juniper-Rock Outcrop (seral juniper encroachment), the occurrence of juniper is much greater than what should be realized. Juniper encroachment into sagebrush-bunchgrass communities is well advanced within these delineations, severely impairing the ecological potential of the area. The areas shown as 0-15% Climax Juniper-Rock Outcrop (minimal seral juniper encroachment) also have juniper occurrence greater than what would be expected, but not to the degree that the encroachment is impairing to the areas' ecological potential.

C. SOILS AND WATERSHED

1. Soils

In the Juniper Mountain WSAs, an estimated 41% of the area has a high erosion susceptibility rating. Approximately 72% of the area supports a sagebrush/grass plant community in climax condition, while about 28% of the area supports western juniper in climax.

In the North Fork Owyhee WSA, approximately 54% of this area has a high erosion susceptibility rating. Nearly 43% of the area supports a sagebrush/grass plant community in climax condition. Western juniper is the climax plant species on an estimated 54% of this area.

2. Watershed Condition

Upland watershed condition is largely determined by the amount of ground cover present on the watershed. Vegetation, rock, and litter protect the soil preventing its loss due to the erosive actions of wind and water. Holding the soil in place is critical to provide long-term dependable watershed stability.

Upland watershed condition in the WSAs appears to be stable. While 48% of the areas have soils with high erosion susceptibility, range inventory data indicate that total ground cover is greater than 50% over the areas. Even though ground cover is adequate, range condition ratings indicate that 59% of the areas have poor vegetation condition.

D. RANGE RESOURCES

1. Livestock Management

a. Allotments and Livestock Use

There are two allotments which are primarily affected by the four Juniper Mountain WSAs and seven allotments which are affected by the North Fork Owyhee River WSA. The allotment size (acreage) and active preference (Animal Unit Months - AUMs), and the percent of the allotment and active preference within the WSAs are given below.

Juniper Mountain WSAs

Allotment	Allot. Size (Acres)	Allotment Active Preference (AUMs)	% Allot. Within WSA		Estimated Active Preference Within WSA 1/ (AUMs)
Trout Springs 0539	98,844	7,338	WSA 16-41	6%	440
			WSA 16-42	11%	808
			WSA 16-45	8%	587
			WSA 16-47	6%	440
			TOTALS	31%	2,275
Bull Basin 0540	44,403	3,726	WSA 16-45	14%	522
			WSA 16-47	17%	633
			TOTALS	31%	1,155

1/ Calculated by multiplying the percentage of the allotment within the WSA by the active preference for the allotment.

North Fork Owyhee River WSA

Allotment	Allot. Size (Acres)	Allotment Active Preference (AUMs)	% Allot. Within WSA	Estimated Active Preference Within WSA 1/ (AUMs)
Brown Fenced Federal Range 0459	758	204	22%	45
Cliffs 0501	18,141	1,788	72%	1,287
Indian Meadows 0529	11,896	1,203	34%	409
Trout Springs 0539	98,844	7,338	1%	73
Pleasant Valley 0546	13,921	1,020	48%	490
Battleground-Boni 0548	34,530	2,935	38%	1,115
Burghardt Individual 0599	14,961	1,754	75%	1,316
TOTALS	193,051	16,242	---	4,735

1/ Calculated by multiplying the percentage of the allotment within the WSA by the active preference for the allotment.

The affected allotments are currently undergoing adjustments in active preference to balance forage consumption with forage production. These adjustments are addressed in the Owyhee MFP and Grazing EIS. The competitive AUM allocation figures presented in other portions of this document constitute the proposed initial stocking rates for the various allotments. The economic analysis uses the competitive AUM allocation as the basis for the cost/benefit comparison of projected changes in forage availability. The active preference is used as the baseline for comparing potential changes in current livestock use resulting from the land management alternatives.

b. Range Developments

Juniper Mountain WSAs

The intensive wilderness inventory and study identified the following range developments within or immediately adjacent to the Juniper Mountain WSAs.

Existing Range Developments

WSA	Stock Ponds	Developed Spring	Fence Line
16-41		2	1.3 miles
16-42		4	3.3 miles
16-45	1	2	2.5 miles
16-47A			3.3 miles

The Owyhee MFP calls for the following additional range developments within the Juniper Mountain WSAs.

Proposed Range Developments

WSA	Spring Developments	Pasture Fence
16-41		Gap Fence .5 mi.
16-42	2	
16-45	1	2.5 miles
16-47	2	

North Fork Owyhee River WSA

The intensive wilderness inventory and study identified the following range developments within or immediately adjacent to the WSA.

Existing Range Developments

Stock Ponds	Spring Developments	Corrals	Fence
8	5 (1 with metal building)	2 (1 abandoned)	+ 17 miles (+ numerous gap fences)

The Owyhee MFP proposes the following additional range developments with the North Fork Owyhee River WSA:

Proposed Range Developments

Spring Developments	Stock Ponds (Reservoirs)	Pasture Fence
4	13	5.6 miles

c. Land Treatment (Vegetation Manipulation)

Juniper Mountain WSAs

The Owyhee MFP proposes brush control and seeding projects on an estimated 12,822 acres within the Juniper Mountain WSAs. Approximately 722 acres of the 12,822 acres to be treated would be brush control only. The remaining 12,100 acres would be brush control and seed. The affected acreage is spread out over a 44,140 acre area encompassing almost the entire juniper region within the WSAs. The majority of the area is 36% to 65% treatable with a comparatively minor amount being 0% to 35% treatable. The overall treatable percentage of WSA 16-41, 16-42, 16-45, and 16-47 is 7%, 41%, 30%, and 28% respectively. Refer to Appendix 2 for treatment and acreage affected by the WSAs within individual allotments. See Map 8 for treatable area delineations by percentage of soil mapping units.

North Fork Owyhee River WSA

The Owyhee MFP decision calls for brush control along with brush control and seeding projects on an estimated 9,105 acres within the WSA. The affected acreage is spread out over a 32,828-acre area encompassing almost the entire hilly region of the WSA as well as large portions of the southeast plateau region. Generally, the affected areas are 0-35% treatable, with small peripheral areas being 36% to 65% or 66% to 100% treatable. The overall percentage of WSA which is treatable is 19%. Refer to Appendix 2 for treatment and acreage affected by WSA within individual allotments. See Map 8 for treatable area delineations by percentages of soil mapping units.

E. WILDLIFE

1. Terrestrial

a. Mule Deer

Mule deer are the most numerous big game species in the WSAs. All of the WSAs are considered mule deer habitat, of which the greater percentage is summer range and only a small percent is winter range. Presently in the WSAs, there are approximately 440 deer using the summer range and 200 using the winter range. Herd composition data (fawn/doe ratios and percentage of young bucks in the harvest), hunter success, and winter range trend counts indicates that mule deer populations are increasing. This increase is due to improved game management and milder winters and not because of habitat conditions.

Habitat on both summer and winter deer ranges is in unsatisfactory condition. The 1977-78 BLM range survey indicated that most of the winter range and the summer range in the WSAs is in poor or fair ecological condition. These conditions do not provide the quality diet of forbs, grasses, and shrubs required by deer to maintain productivity and survive severe climate conditions. A study by Trout and Thiessen (1973) in Owyhee County indicated existing deer diets are not optimum. Both the 1973 Fish and Game study and the BLM Owyhee range inventory showed that the present condition of ecological sites in the WSAs do not provide the proper mixture of palatable species needed for a quality mule deer diet.

b. Antelope

Populations of antelope are thinly scattered in portions of WSAs 16-40, 16-45 and 16-47. Herd composition data available for the WSAs since 1974 indicates poor fawn production and survival which reflects a declining population. This probably results from poor habitat conditions.

There are seasonal ranges used by migratory herds. Movement of antelope from summer to winter ranges appears to be in response to habitat restriction imposed by snow rather than by distinct migration routes. Populations along the western edge of the WSAs winter in Oregon. The BLM range survey found that most of the antelope range is in fair and poor ecological condition. When ranges are in poor condition and forage is limited, competition occurs between all herbivorous animals. However, there is little or no competition between antelope and livestock on ranges in good condition.

c. Sage Grouse

Sage grouse are one of the most important game birds of the WSAs. They are widely scattered in the low and big sagebrush communities. Based upon strutting ground counts, populations seem to be increasing in the western portion of the Owyhee Resource Area in general and remaining stable in the eastern portion. This indicates an increase for the WSAs' population.

The distribution of nesting habitat is based mainly on locations of strutting grounds. Strutting grounds are natural open clearings surrounded by sagebrush where males gather every year to court females. These areas are important since most females nest within 2 miles of the grounds (Western States Sage Grouse Committee 1974).

Sage grouse are found throughout approximately 17,280 acres of the WSAs. This acreage includes nesting and brood-rearing areas. More than 90% is in poor and fair ecological condition, and this illustrates the limited quantity of understory vegetation currently found in the nesting areas. This results in less cover for nesting and lower brood success rates. Sagebrush canopy cover, a critical factor, is quite good in these areas.

Approximately 400 acres of the WSAs contain the meadow complexes needed to provide good brood-rearing cover. There are 75% of these acres in fair condition.

Ecological condition of meadows does not directly relate to brood habitat requirements. Although most meadows are in fair ecological condition, the intense livestock use on these areas results in an average utilization in excess of 90%. This results in less cover to hide chicks from predators and lowers insect production. As a consequence, fair condition meadows that are closely grazed provide poor brood-rearing habitat.

The WSAs' sage grouse wintering habitat has not been identified but sage grouse require dense concentrations of sagebrush, especially the low growing varieties, that provide the 20% canopy cover needed for wintering sage grouse. Sagebrush also makes up almost 100% of the winter diet and approximately 50% of the spring, summer, and fall diet (Patterson 1952).

d. Waterfowl

Four species of geese and eighteen species of ducks occur in the WSAs as resident or migratory species. Common nesting species are Canada geese, mallard, pintail, green-wing teal, and cinnamon teal.

In the spring, waterfowl in the WSAs depend on adequate cover in the upland areas for nesting (Berg 1956). Broods depend on emergent aquatic and shoreline vegetation for cover and food. Nesting and brood cover are generally in very poor condition in the vicinity of water due to the heavy utilization of these areas by livestock.

e. Meadow/Riparian Associated Wildlife

Livestock concentrate in meadow/riparian habitats due to the presence of water, green forage, and in the case of riparian habitats, shade. In the WSAs, about 53% of the approximately 74 public miles of major riparian habitats are severely impacted by livestock and are in poor condition. Forty-seven percent of these habitats are in fair condition. These overused areas exhibit lower vegetation diversity, limited tree and shrub canopy, a high occurrence of undesirable species (cockleburrs, cheatgrass, and mustards) and inadequate reproduction of desirable plants.

Most wildlife species in the WSAs use riparian habitats disproportionately more than any other habitat type available. The structural diversity offered by a tree layer, a shrub layer, and a herbaceous layer provides large amounts of nesting, roosting, hiding, escape, and thermal cover for both high densities and many species of wildlife. Additionally, riparian vegetation provides many important food plants such as aspen, cottonwood, willow, maple, currant, rose, grasses, and forbs. Riparian vegetation remains green and nutritious longer than the surrounding upland vegetation.

Several important species closely associated with riparian zones include beaver and river otter.

(1) Beaver are found in most major perennial creeks within the WSAs although populations are scattered and generally low. Remnant washed-out dams and aspen stumps indicate beaver were once abundant. Beaver depend upon the bark and twigs of riparian shrubs and trees for food. Although they are capable of harvesting trees and shrubs beyond the reach of livestock, this food source is limited if young plants are being suppressed by livestock and beaver.

(2) Native river otter (a sensitive species) are found in the Owyhee River tributaries of WSA 16-40 and 16-45. An adequate food supply (fish, frogs, crayfish, mollusks, and insects) and den sites (burrows with underwater entrances) are two key habitat elements for this species. Livestock can affect both of these habitat elements. Depleted riparian zones provide lower amounts of potential prey and fewer beavers, whose vacated dens are used by otters.

f. Endangered, Threatened, and Sensitive Species

There are no threatened or endangered species of wildlife in the WSAs. There are several sensitive species including river otter and bobcat.

2. Fisheries (Aquatics)

a. Fish Species

There are eight principle species of fishes occupying the streams and rivers associated with the WSAs, including red-banded trout (sensitive species), dace, suckers, squawfish, shiners, chiselmouth, sculpins, and smallmouth bass.

b. Fisheries Habitat Condition

The overall fisheries habitat for much of the Owyhee River drainages within the WSAs is in a poor to fair condition. The upper reaches of the North Fork Owyhee River and the major tributary streams (Noon Creek and Pleasant Valley Creek) in WSA 16-40 are in poor to fair condition while the lower and middle portions of the river and tributary streams (Noon Creek) are in fair to good condition. Current Creek is generally in fair to good condition, with the upper reaches in poor condition. The Middle Fork Owyhee River in WSA 16-45 is in fair to poor condition. The West Fork Red Canyon in WSA 16-47 is in poor condition. Intensive utilization of riparian areas by livestock has resulted in stream siltation, unstable stream banks, and loss of stream cover, particularly in the upper reaches of all streams where serious livestock conflicts exist. Natural low flows and the lack of pooling also adversely affect habitat condition.

In addition to creating silt problems and stream channel movement, unstable stream banks resulting from overgrazing often result in the loss of bank undercuts. Bank undercuts are important fish habitat in streams since limited fish cover is available in streams of the WSAs.

When riparian areas are heavily utilized, surface erosion increases with resultant increases in silt to streams. In addition, loss of stream cover may result in increases in water temperature. Overhanging vegetation may be the only available cover for fish. Rooted vegetation also adds stability to stream banks, the importance of which has been discussed.

c. Water Quality

High levels of pH, temperature, percent saturation of dissolved gasses, and alkalinity were recorded in portions of the North Fork Owyhee River and Deep Creek (below Current Creek). Fairly high levels of fecal and total coliform counts were found in Juniper and Red Canyon Creeks. High pH, temperature, percent saturation, and alkalinity are all limiting factors to trout survival. The remaining streams within the WSAs exhibited acceptable water quality standards.

F. RECREATION

1. Recreation Opportunities

The WSAs have the capability of providing a diversity of outstanding dispersed recreation opportunities in a natural setting. Contacts with other visitors and with imprints of man are a rare occurrence. An exception is for a month during big game hunting season when hunters are occasionally encountered and their activities frequently heard.

The exceptional scenic features, the interesting and diverse topography, and the juniper forest are very appealing to recreationists interested in backpacking, hiking, nature study and photography, primitive camping, fishing, hunting, and horseback riding. The numerous miles of narrow, meandering canyons, the hilly and plateau areas, along with the beautiful rock formations, all contribute to outstanding recreation opportunities.

Several of the perennial streams provide good fishing for native rainbow (red-banded) trout. Opportunities to hunt mule deer are good on Juniper Mountain but limited around the North Fork Owyhee River. Opportunities for small game and upland game hunting are poor.

There are no recreation facilities within the WSAs.

2. Visitor Use

Juniper Mountain is within Big Game Management Unit 42 established by the Idaho Fish and Game Department, while the North Fork Owyhee River is within Unit 40. Both units are open for three weeks in September for either sex deer hunting by archers. Unit 42 is open for about four weeks in October-November for the hunting of antelered deer by rifle, while due to limited wildlife numbers Unit 40 is open for only about five days in October. The Idaho Fish and Game Department estimates that Juniper Mountain receives about 4,500 days of big game hunting use. Hunting use within the North Fork Owyhee area is considerably less.

Visitation for other recreation activities is light when compared to hunting because the opportunities within the WSAs are little known to recreationists interested in primitive activities, and because there is a wealth of similar opportunities within the region resulting in a wide dispersion of primitive recreation use.

Based on the number of inquiries received by the BLM, it is estimated that the North Fork Owyhee River area received about 180 visitor-days of backpacking use in 1981. This interest in the area was generated by the Bureau's wilderness studies.

The Pacific Northwest River Basins Commission (PNWRBC) has estimated existing and projected outdoor recreation demand for each county within Oregon, Washington, and Idaho. For Owyhee County, the PNWRBC has estimated that total outdoor recreation demand will increase from 3,317,200 activity occasions in 1980 to 5,457,500 activity occasions by the year 2000. Seventy-two percent of the 1980 demand originated from outside the county.

The following table summarizes PNWRBC Owyhee County demand for those recreation activities that would be expected to occur within the North Fork Owyhee and Juniper Mountain areas. The percentage of the county demand that occurs within the five WSAs cannot be determined.

Owyhee County Recreation Demand
in Activity Occasions (PNWRBC)

Activity	1980	2000	Increase 1980-2000
Camping	190,800	311,700	63%
Fishing	124,000	169,900	37%
Hiking	138,100	224,300	62%
Hunting	150,400	212,600	41%
Horseback Riding	84,000	123,900	48%
Nature Study	105,700	175,900	66%

Based upon a mathematical model developed by Dr. Steven Jungst of Iowa State University in his 1978 study for the U.S. Forest Service entitled Projecting Future Use of the National Forest Wilderness System, use in existing wilderness areas is predicted to increase in southern Idaho, Nevada, and Utah by 60% to 120% between 1980 and 2000, and 150% by 2020.

The Idaho Outdoor Recreation Survey conducted for the 1977 Outdoor Recreation Plan determined how far participants were willing to travel (one way) for specific outdoor activities. On the average, within southwestern Idaho recreationists were willing to travel 83 miles for backpacking, 59 miles for hiking, 122 miles for outdoor photography, 82 miles for hunting, 99 miles for fishing, and 40 miles for horseback riding. The North Fork Owyhee River/Juniper Mountain area is about 110 road miles from Idaho's population center, almost entirely by good roads.

Factors such as changes in the economy and changes in fuel costs will affect recreation use patterns.

G. SCENIC RESOURCES

The scenic qualities of the WSAs have been evaluated by using scenic quality rating criteria adopted by the BLM. Areas are rated Class A, B, or C, depending on evaluations of landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. Generally, Class A scenery is excellent, Class B good, and Class C fair.

The canyons of the North Fork Owyhee River (WSA 16-40), Squaw Creek (WSA 16-42), and the lower North Fork Owyhee River (WSA 16-45) are Class A scenery. These canyons are spectacular sheer-walled chasms highlighted by gnarled juniper and rhyolitic pinnacles speckled with colorful lichen. When bordered by sagebrush dominated plateaus, the canyons form a meandering oasis of sharp vertical forms and light colors that contrast strongly with the gentle landforms and muted colors of the plateau.

The remaining portions of the WSAs are Class B scenery. While the juniper covered hills and their drainages are not spectacular, they do provide pleasant vistas. Contrasting dense juniper thickets and open sagebrush meadows create alternating feelings of enclosure and expansiveness. The scenic quality of the area is enhanced by the relatively drab flat sage-covered plateaus characteristic of much of the adjacent region.

H. CULTURAL RESOURCES

North Fork Owyhee River WSA

The North Fork Owyhee River WSA is identified as an area of high projected density for archaeological sites. This projection is based on data generated by inventory conducted from 1976 to 1978. Two archaeological sites and eight isolated artifact finds have been documented within the WSA, and eight archaeological sites and eight isolated artifacts have been located in close proximity to the WSA. Most of these findings are related to hunting activities, but the site known as Indian Battle Ground is reportedly the scene of a battle fought during the Bannock War. Indian Battle Ground apparently qualifies for listing on the National Register of Historic Places but would require further evaluation and documentation prior to nomination. The Indian campsite on Noon Creek is also thought to be eligible for the National Register though no formal determination has been sought.

There is insufficient information to evaluate the significance of two log cabins reported to be present in the WSA.

Juniper Mountain WSAs

The Juniper Mountain WSAs are also identified as an area of medium to high projected density for archaeological sites. Three archaeological sites and five isolated artifact finds have been documented within the WSAs, and thirteen archaeological sites and six isolated artifacts have been located in close proximity to the WSAs. Most of these findings are related to hunting activities.

There is insufficient information to evaluate the significance of a historic cabin located adjacent to the WSAs.

I. MINERALS

Evidence of past or present mining activity has not been observed within the WSAs. As of April 1, 1982, there were no mining claims recorded with the Idaho State Office of the Bureau of Land Management which affect the WSAs.

The presence of surface mineralization or a surface indication of mineralization at depth within or adjacent to the WSAs has not been reported or observed. Cenozoic (65 million years to the present in age) volcanic rocks cover the entire surface of the areas. At least 400 feet of these volcanic rocks are exposed in the canyon walls. Bennett (1976, p. 23) believes Juniper Mountain to be the source area for these volcanics.

J. LANDS

There are four state inholdings contained within the WSAs. Three are associated with the canyons and hills of the N.F. Owyhee River in WSA 16-40. The fourth lies across the canyon of the M.F. Owyhee River in WSA 16-45.

There are no private inholdings within the WSAs.

The four state inholdings are currently being used for livestock grazing and are substantially natural in character.

The Owyhee MFP has identified a potential land exchange with the State of Idaho. This exchange would significantly improve the configuration and manageability of all WSAs, except 16-41, as a designated wilderness by placing state inholdings into federal ownership. In addition, state lands adjacent to WSAs 16-42, 45 and 47 would become federal land and improve management configuration.

Phase one of the exchange would trim 480 acres from the northeast corner of WSA 16-40 while phase three would eliminate 1,110 acres from the eastern boundary of the WSA. Both of these reductions would not hinder the configuration and manageability of the WSA as a designated wilderness. The other affected WSAs could only have lands added to any potential wilderness area.

K. ECONOMIC CONDITIONS

The local economic area is defined as Owyhee County. All WSAs are located in this county and impacts are not expected to be of such magnitude as to significantly impact adjacent counties.

1. Income

The income for Owyhee County by industry is shown below. 1/

Industry	$000's	Percent of Total
FARM	$ 6,788	24%
Livestock	2,715	10%
Crop	4,073	14%
NON-FARM	$21,207	76%
Private	16,592	59%
Agricultural Services, Foreign 2/	757	3%
Mining	3,674	13%
Construction	1,294	4%
Manufacturing	3,193	11%
Transportation, Public Utilities	1,778	6%
Wholesale Trade	1,330	5%
Retail Trade	2,404	9%
Finance, Insurance, Real Estate	556	2%
Services	1,606	6%

Income Continued

Industry	$000's	Percent of Total
Government	4,615	17%
Federal, Civilian	1,350	5%
Federal, Military	130	1%
State and Local	3,135	11%
TOTAL	$27,995	100%

1/ Based on 1972 Standard Industrial Classification Codes
2/ Wages and salaries of U.S. residents working for international organizations included.

Source: Bureau of Economic Analysis, U.S. Department of Commerce, April 1981, Regional Economics Information System

2. Employment

Employment in Owyhee County is shown below. 1/

Industry	Employment	Percent of Total
TOTAL EMPLOYMENT 2/	3,314	100%
Proprietors	853	26%
Farm	612	19%
Non-Farm	241	7%
Wage and Salary	2,461	74%
Farm	732	22%
Non-Farm	1,729	52%
Private	1,210	36%
Agricultural Services, Foreign 3/	106	3%
Mining	172	5%
Construction	58	2%
Manufacturing	262	8%
Transportation, Public Utilities	87	3%
Wholesale Trade	111	3%
Retail Trade	227	7%
Finance, Insurance, Real Estate	38	1%
Services	149	4%
Government	519	16%
Federal, Civilian	84	3%
Federal, Military	52	1%
State and Local	383	12%

1/ Based on 1972 Standard Industrial Classification Codes
2/ Wage and salary plus proprietors
3/ Includes jobs held by U.S. residents working the international organizations

Source: Bureau of Economic Analysis, U.S. Department of Commerce, April, 1981

3. Current Economic Use

Livestock grazing is the primary economic use in the WSAs under study. Some recreation use occurs, but it is limited and accurate measures of this use are not available. There are no known mineral values in the WSAs. Current available forage for livestock use in the affected allotments amounts to 14,005 AUMs. Based on information in the Owyhee Grazing Environmental Impact Statement, this would translate into $205,000 in annual income. This would account for 5% of the Owyhee County livestock income.

L. SOCIAL CONDITIONS

The intensity of feelings for wilderness varies widely from those who mildly favor or oppose to those who strongly favor or oppose further wilderness designations.

In a 1979 statewide survey of Idaho households (Card and Carlson, 1979), respondents were asked whether they agreed or disagreed with the statement, "We have enough areas legally designated as wilderness in Idaho". Of the 1,410 responses received, 67% agreed that there is enough legally designated wilderness in Idaho, with 15% neutral and 18% disagreeing with the statement. Further analysis shows that those respondents living in Adams, Washington, Payette, Gem, Canyon, Ada, Boise, Elmore, Owyhee, and Valley Counties (Idaho Planning Region 3) responded to this same question as follows:

68% agree there is enough wilderness
17% neither agree nor disagree
15% disagree that there is enough wilderness

The regional opinions are almost exactly the same as those held statewide and are felt to be representative of Idahoans living in the local areas.

Based on this information, it appears that in spite of polarity of opinion between those favoring or opposing additional wilderness designations, the majority does not favor additional wilderness designation. Furthermore, irregardless of what is stated in the BLM Wilderness Management Policy, livestock operators are concerned that livestock grazing may be curtailed or halted under a wilderness designation, or at best be made more difficult because of the exclusion of most motorized operations within the wilderness area normally associated with ranching operations. Ranchers are also concerned about how wilderness designation would affect the implementation of future range improvements within the areas.

The major non-ranch related users of the area are recreation users, mostly from Canyon and Ada Counties. These users feel that the quality of outdoor experience now available should be protected for future use.

CHAPTER V
ENVIRONMENTAL CONSEQUENCES

This chapter discusses the environmental consequences of implementing each of the five alternative land management actions. An analysis of all affected resources is given under each of the five alternatives. Because of the similarity of impacts for all WSAs, the analysis refers to all WSAs unless otherwise specified. Those resources and environmental factors which were determined not to be significantly impacted by any alternative are not shown in this chapter. These resources or environmental factors include climate, air quality, geology, state lands (use of resources on state lands), minerals, cultural resources, and social values. A finding of no significant impact of these resources was attributed to the lack of the resource in the WSAs or none of the alternatives would alter the present condition or use of the resources.

NO ACTION/NO WILDERNESS ALTERNATIVE (PROPOSED ACTION)

A. WILDERNESS CHARACTERISTICS

None of the WSAs would be recommended as suitable for wilderness. The National Wilderness Preservation System (NWPS) could be left with no representation of the juniper component of the Sagebrush Steppe ecosystem. There are currently 34,545 acres of the Sagebrush Steppe ecosystem in the NWPS. There are, however, about 4.7 million acres of the Sagebrush Steppe under wilderness review by the BLM, FWS, and USFS, about 800,000 acres of which have the juniper component. Some of these areas may be recommended as suitable for wilderness, thereby providing representation of this ecosystem with the juniper component.

Juniper cutting, stream bank stabilization, and possible trail construction or other recreation developments would cause some loss of apparent naturalness. A highly noticeable short-term loss of apparent naturalness would be caused by log structures in streams, juniper chaining, spraying, and juniper logging/burning. Initially, it would be apparent that man has had a hand in the vegetation manipulation and stream bank stabilization projects. However, these projects are being designed to emulate natural openings and natural processes. In the long term, revegetation should obscure their man-made origins and leave a landscape that is only somewhat less natural appearing as currently exists.

There would be a permanent loss of some opportunities for solitude because of reductions in juniper cover due to vegetation manipulation projects. Increases in recreation use could also reduce opportunities for solitude.

Opportunities for primitive recreation could be diminished as possible recreation or other resource developments increase opportunities in semi-primitive or non-primitive settings, and as juniper eradication projects make areas less natural and susceptible to ORV use.

B. VEGETATION

One of the primary objectives of the Owyhee MFP is to attain a good ecological condition on rangelands by a combination of vegetation manipulation and grazing management. The methods commonly used for vegetation manipulation include mechanical means (such as chaining), chemical treatment, and burning, each of which might or might not be followed by seeding.

The No Action/No Wilderness Alternative would allow managers to use any and all of the above methods, where appropriate, as well as a full range of grazing management options to attain good condition. This approach would result in improvements in plant vigor, composition, and the condition of plant communities. Juniper encroachment would be curtailed allowing for improvement and/or re-establishment of sagebrush-bunchgrass communities. Areas in good condition would be maintained, and areas of fair or poor condition would be improved. The juniper dominated landscape would eventually revert back to a landscape of juniper intermingled with open sagebrush-bunchgrass areas and rock outcrops.

Vegetation manipulation projects would improve overall ecological condition. However, the area's ecological value as a representation of a Sagebrush Steppe ecosystem could be severely compromised by seeding of non-native plant species.

C. SOILS AND WATERSHED

Soil surface disturbing activities such as ORV use, land treatment, construction, etc., would continue. However, overall watershed condition would improve slightly due to improvements in ground cover and soil stability resulting from grazing systems and land treatment projects. Proposed land treatments would result in a short-term, moderate increase in sheet erosion. However, as vegetation cover becomes re-established in greater abundance, a long-term, moderate improvement in watershed condition would result.

Water yield, availability, and quality would be improved somewhat by spring and revervoir developments. Stream bank stabilization projects would reduce channel erosion and improve water quality.

D. RANGE

Under this alternative, livestock grazing, land treatments (vegetation manipulation), and construction of new and maintenance of existing structural rangeland improvements would be implemented as stated by the Owyhee MFP. Monitoring of livestock by operators would not be affected because there would be no constraints in the use of motorized vehicles for livestock management.

Based on the Owyhee Grazing EIS, projected livestock use after a 20-year period would increase above the current active preference in those allotments affected by The WSAs, except for Allotment 0501. Projected increases in livestock use are predicted primarily on the implementation of intensive grazing management and vegetation manipulation projects. Under the No Action/No Wilderness alternative, vegetation manipulation plans would be implemented as scheduled by the Owyhee Grazing EIS. The AUM increases attributed to grazing management and land treatment are shown in Appendix 3, Table 1, for the affected allotments. All allotments show an increase in active preference, except for Allotment 0501, which has a decreased active preference of -1%. The increase in active preference ranges from <+1% to +73%. The total increase in active preference for the affected allotments is +40% which is a 99% increase over the initial livestock competitive AUM allocation. Appendix 3, Table 3, shows the above changes by individual WSA for this alternative.

E. WILDLIFE

The impacts on the WSAs' mule deer population would be beneficial because the implementation of the MFP would allow vegetation manipulation (chemical, mechanical, and/or burning) in the WSAs. This alternative could provide additional habitat for approximately 500 mule deer due to the potential increase of 90 available AUMs for wildlife by brush control and seeding. This increase is based upon the assumption (Owyhee MFP) that for every AUM increase resulting from land treatments, 2.5% would be allocated for mule deer.

Water distribution would be improved by construction of proposed reservoirs in areas currently lacking adequate water. Fencing (to exclude cattle but permit mule deer passage) of reservoirs and springs would enhance the succulent vegetation available to mule deer. Riparian habitat protective fencing would increase forage quality in these areas. Cover and water quality would also be improved.

The No Action/No Wilderness Alternative would also benefit antelope with the use of vegetative manipulation and increased water development in areas lacking adequate water sources.

There would be improvement in sage grouse habitat by fencing of reservoirs, springs, and meadows. Brood-rearing habitat would be improved greatly.

Waterfowl populations would benefit through the construction of reservoirs and small ponds, and protective fencing of the water developments. Riparian habitat protective fencing would also enhance waterfowl population and small bird species.

Fencing to control livestock use in riparian areas adjacent to streams would benefit fisheries habitat. The use of log and rock structures in and adjacent to streams would help stabilize stream banks, create pools, reduce trampling effects of livestock, and increase in-stream cover.

F. RECREATION

According to the Owyhee MFP, approximately 94,000 acres of Juniper Mountain and 57,000 acres of the North Fork Owyhee River area will receive further planning as Special Recreation Management Areas (SRMAs) and be managed to provide primitive and semi-primitive, motorized and nonmotorized, recreation opportunities. The five WSAs lie entirely within these two larger recreation designations.

Generally, the canyons of the WSAs would continue to provide outstanding opportunities for solitude and primitive recreation in a natural environment with limited evidence of man-made restrictions and controls. Only facilities needed for resource protection would be visible. Motor vehicle use would not likely occur. There are no existing roads or ways within areas now providing primitive opportunities.

The other land within the WSAs would provide semi-primitive, motorized, and nonmotorized recreation opportunities except in areas with considerable vegetation manipulation. Motor vehicle use would continue on existing roads and ways. Limited vegetation manipulation projects could protect semi-primitive opportunities if carried out to resemble natural conditions or occurrences. Semi-primitive recreation opportunity areas would provide an experience for some isolation from the sights and sounds of man in a more modified natural environment than that of the canyonlands. Areas receiving more treatment would provide non-primitive recreation opportunities including a possible increase in ORV use.

As recreationists become aware of the opportunities available, there would be moderate increases in backpacking, hiking, nature study and photography, and primitive camping use. Minimal recreation facilities needed for the protection of resource values and the safety of users, such as roadside sanitation facilities and potable water and limited interior trails, may be provided along with rustic signs along roads and trails.

Improved livestock grazing management and vegetation manipulation practices would result in improved wildlife habitat conditions. This in turn would result in increased deer numbers with a corresponding increase in big game hunting opportunities and additional hunting use.

If determined consistent with the management of an area offering primitive recreation opportunities, the construction of a fish ladder around a 6-foot waterfall could expand red-banded trout fishing on the North Fork Owyhee River.

G. SCENIC RESOURCES

Under the MFP, over 50,000 acres or about one of every four acres of juniper cover would be affected by land treatments in the juniper forest of the Owyhee Resource Area around and within the WSAs. Based upon 1981 controlled burning experiences, the high percentage of treated lands (25%) would have an adverse effect on the WSAs. Directly treated areas would drop from B to C scenery. Compared to these treatments, juniper spread or invasion has an insignificant impact on the scenic resource.

Land treatment would adversely affect five of the seven key factors used to evaluate scenic quality. These five are landform, vegetation, influence of adjacent scenery, scarcity, and cultural modifications.

Landform - Current landform contrasts steep canyon with forested areas that seem smooth. After land treatment, depressions, stumps, and exposed rock will create a coarse, rough textured landscape. This is less desirable than the current contrast between rough canyon and smooth hills.

Vegetation - Most of Juniper Mountain has less than 60% juniper canopy cover. The majority of the area has a parklike setting with scattered trees, flat rock or grass. Only a small percentage could be classified as a "thicket". Land treatment would alter this situation. Instead of walking among trees, broad (1/4 mile), open, sunbaked expanses would be the norm. Where 60% of the area is cleared to create a 40-60 cover ratio, the juniper canopy would be reduced to less than 25%.

Furthermore, after trees are cut, sprayed or chained, they would be burned. Standing dead, burned trunks would persist more than 20 years.

Influence of Adjacent Scenery - Currently, Juniper Mountain is a green island set in the broad, brown plain around it. Twenty-five percent land treatment would affect lands in many vistas within the WSAs and would reduce the desirable green cover viewed from the surrounding lands.

Scarcity - Beyond Juniper Mountain lies thousands of acres of widely scattered junipers or grasslands. Land treatment will convert the forest to grass, which is more common and less desirable from a scenery standpoint.

Cultural Modifications - With land treatment, the high degree of apparent naturalness would end for over 20 years. Treatments would add indiscordant sights and reduce visual variety in most areas.

The land treatment would directly degrade over 60 miles of WSA boundary roads and about 20,000 acres of juniper forest for over 20 years. Furthermore, since land treatments would have to be repeated due to continued encroachment of juniper, these adverse impacts could be obvious on the Juniper Mountain landscape for the foreseeable future.

H. ECONOMIC EFFECTS

Under the No Action/No Wilderness Alternative, the number of AUMs available after 20 years would increase by 13,891 AUMs through intensive grazing management and land treatment projects in the impacted allotments. Range improvements necessary to realize this increase in AUMs would amount to $328,700 in structural improvements (fences, springs, reservoirs) and $595,400 in land treatments (seedings, brush removal, burning). Annual income gains by ranchers would amount to $62,000 by year 5 and $203,000 by year 20.

See Appendix 3, Table 2 for allotment specific data concerning the economic impact of vegetation manipulation.

Based on assumptions in the Owyhee Grazing EIS, it is estimated that roughly $115,000 of the range improvements would be purchased in Owyhee County. Since the structural improvements would be spread over 5 years and the land treatments over 15 years, the secondary impacts associated with range improvements would not be significant.

The increase in rancher income would impact the local economy through secondary effects. The multiplier estimated for the Owyhee Grazing EIS for livestock grazing was 1.4. This means that for every $1.00 increase in income in the livestock sector, an additional $0.40 of income is generated in other sectors of the economy. Under this alternative, the secondary impact would annually amount to $25,000 by year 5 and $81,000 by year 20.

The benefit/cost ratio of implementing this alternative, considering only rancher income gains and range improvement costs, would be 1.60. This means that when the benefits and costs are discounted using a 7 5/8% discount rate, $1.60 in benefits are received for each $1.00 in costs. Discounting is a process that expresses future benefits and costs in terms of their present worth or value. The discount (interest) rate of 7 5/8% is used since it is the rate established by the U.S. Water Resources Council for use by federal agencies in analyzing water and related projects.

ALL WILDERNESS ALTERNATIVE

A. WILDERNESS CHARACTERISTICS

The suitable recommendation would include 99,725 acres of the juniper component of the Sagebrush Steppe ecosystem. Wilderness designation would assure representation of this ecosystem with the juniper component in the National Wilderness Preservation System.

The primary management policy would be to prevent degradation of natural conditions, opportunities for solitude and primitive recreation, scenic quality, and ecological values.

The apparent naturalness of the areas would be preserved. Publicity associated with the wilderness designation process could result in increasing recreational use and diminishing some opportunities for solitude. However, opportunities for primitive recreation and solitude would be maintained by management of visitor use with indirect methods and, if necessary, direct methods.

Opportunities for primitive recreation would be maintained throughout the WSAs. Publicity associated with wilderness designation would make recreationists seeking primitive experiences aware of the outstanding opportunities available in this area. More diversified recreational use could occur as backpackers, hikers, photographers, etc., join hunters who are the predominant recreation users today.

B. VEGETATION

The Wilderness Act and the BLM Wilderness Management Policy require that mechanical and chemical methods of vegetation manipulation generally not be allowed in wilderness and that prescribed burning be permitted only for the purposes of re-establishment of natural fire regimes. Seed would be broadcast, except in special situations where other seeding methods were necessary. Species seeded would be only those that are native or naturalized to the areas treated.

The All Wilderness Alternative would limit the options available to the manager to manage grazing and to manipulate vegetation. Attaining the goal of good ecological condition could be impeded or even prevented in areas where the vegetation manipulation methods permissible were inappropriate or unworkable. Therefore this alternative would result in limited improvement in plant vigor, composition, and ecological condition. Juniper encroachment on adjacent sagebrush-bunchgrass sites would probably continue and these areas could decline in condition or be replaced entirely. The condition of climax juniper sites would remain stable or improve slightly from grazing management. The landscape would continue to be dominated by climax and seral stands of juniper.

Livestock grazing and vegetation manipulation constraints imposed by wilderness designation could result in an imbalance in livestock numbers and production (AUMs) among pastures within the affected allotments. This imbalance could limit or even preclude the implementation of rotation grazing systems and the corresponding improvement in ecological condition of wilderness and non-wilderness areas within the affected allotments.

C. SOILS AND WATERSHED

Implementation of grazing systems would result in a slight increase in ground cover. The beneficial effects of grazing systems would be limited due to restrictions on developments to improve grazing distribution, land treatments, and water developments throughout affected allotments.

Structures to improve water yield would not be constructed. Water developments to retain run-off would be restricted. Therefore, improvements in water availability would be limited.

Restriction of some soil surface disturbing activities and implementation of grazing systems would result in a slight reduction in sheet erosion. Bank stabilization projects would generally not be allowed resulting in continued channel erosion.

D. RANGE

The Wilderness Act and the BLM Wilderness Management Policy state that livestock grazing activities,and the necessary facilities to support a grazing program would be permitted to continue in wilderness areas when such grazing use was established prior to designation of an area as wilderness. There would be no curtailment of grazing permits or privileges in an area simply because it is designated as wilderness. Grazing in wilderness areas ordinarily would be controlled under general regulations governing grazing of livestock on public lands. This includes the establishment of normal range allotments and allotment management plans. Furthermore, wilderness designation would not prevent the maintenance of existing facilities nor the construction and maintenance of new facilities which are consistent with allotment management plans and/or which are necessary for the protection of the range.

Any adjustments in the numbers of livestock (active preference) permitted to graze in wilderness areas would be made as a result of revisions in the normal grazing and land management planning and policy setting process, giving consideration to legal mandates, range condition, and the protection of the range resource from deterioration.

It is anticipated that the numbers of livestock permitted to graze in the wilderness areas would remain at the approximate levels existing at the time the areas enter the wilderness system. If land management plans reveal that increased livestock numbers or AUMs could be made available with no adverse impact on wilderness values such as plant communities, primitive recreation, and wildlife populations or habitat, some increases in AUMs may be permissible. This is not to imply, however, that wilderness lends itself to AUM or livestock increases and construction of substantial new facilities that might be appropriate for intensive grazing management in non-wilderness areas.

Though wilderness designation and its resulting constraints involving the use of vehicles and motorized equipment would not hinder required maintenance or response to emergency situations, it would hinder day-to-day monitoring and management by operators and BLM personnel. Wilderness would effectually inhibit the trend toward mechanization and efficiency in livestock monitoring and management.

Based on the Owyhee Grazing EIS, projected livestock use after a 20-year period would increase above the current active preference in those allotments affected by the WSAs, except for Allotment 0501. Projected increases in livestock use are predicated primarily on the implementation of intensive grazing management and vegetation manipulation practices within the allotments as a whole. However, land treatment projects would not be implemented within the wilderness areas.

The impact of wilderness designation is shown in Appendix 3, Table 1, for the affected allotments. Under the All Wilderness Alternative, five allotments would show an increase in AUMs which ranges from <+1% to +64% and three allotments show a decrease which ranges from -5% to -26%. The total increase in active preference for the affected allotments is +22%. The increase over the initial livestock competitive AUM allocation would be 74%. Appendix 3, Table 3, shows the above changes by individual WSAs for this alternative.

Projected increases in livestock use outside wilderness boundaries but within affected allotments may be limited by wilderness designation. Increases in livestock use outside wilderness boundaries could not be implemented without affecting an increase in use within the wilderness area. If increased livestock use could not be implemented in a manner where it would not adversely affect wilderness values, projected increases in livestock use within the affected allotments may be substantially less than anticipated.

Wilderness designation would impose constraints on livestock grazing (numbers) and vegetation manipulation practices. These constraints could result in an imbalance in livestock numbers and production (AUMs) among pastures within the subject allotments. This imbalance could limit or even preclude the implementation of rotation grazing systems and the corresponding improvement in ecological condition of wilderness and non-wilderness within the subject allotments.

E. WILDLIFE

The All Wilderness Alternative would limit the management potential for mule deer habitat improvement and population increases. Vegetation manipulation (chemical and mechanical) to improve mule deer habitat by creating openings and edge effects in juniper dominated areas would not be allowed or would be limited. Mule deer populations would therefore remain relatively stable at current numbers or show only slight increases.

Wildlife habitat and wildlife populations in general would only be slightly improved because of the limited manipulation by fire on 17,687 acres of land classified as treatable. The restoration of some of the treatable acres would provide a few additional AUMs for wildlife. Watershed stabilization or restoration activities to protect or rehabilitate riparian and stream zones for fisheries and river otter may not be allowed or would be limited. Laddering of waterfalls on the North Fork Owyhee River may not be allowed to improve fisheries.

F. RECREATION

Congressional designation of 99,725 acres as wilderness would maintain outstanding opportunities for solitude and primitive recreation, and the protection of natural and scenic values which enhance the recreation experience.

Public awareness caused by wilderness designation combined with the good road access to the areas could result in increases in recreation use. Therefore, limitations and restrictions may need to be placed on recreation use to protect wilderness values.

Increased publicity and notoriety would shift the type and season of recreation use from predominantly hunting in the fall to a more even distribution of several recreation activities (backpacking, hiking, primitive camping, nature study) from spring to fall. Minimal recreation facilities needed to protect wilderness values may need to be provided within the wilderness areas.

Because of restrictions on land treatments, hunting opportunities would show limited improvement, but wildlife habitat improvement projects on lands outside of the wilderness may result in an increase of mule deer numbers within the wilderness areas. A proposed fish ladder, which would improve fishing opportunities on the North Fork Owyhee River, may not be constructed.

To implement wilderness management, 15 miles of low-standard cherry stem roads and ways within the North Fork Owyhee River area, and 12 miles of low-standard cherry stem roads and ways on Juniper Mountain would be closed to recreational motor vehicle use. These closures would enhance solitude and naturalness within the areas, but closures to motor vehicle use would restrict big game hunter access and dispersion.

G. SCENIC RESOURCES

The All Wilderness Alternative does not eliminate land treatments, but greatly limits their scope. Burning in wilderness areas would be done to re-establish fire dependent ecosystems and is, therefore, a one-time event. Naturalness is a major wilderness value which a burning plan would address. By contrast, burning to increase forage would be more frequent and do more damage to naturalness due to its utilitarian goal.

Because wilderness burnings would have different goals, closer control and smaller scale, they would have few adverse impacts. The problem of encroachment of juniper thickets into what is currently open meadows would be avoided by burning.

All Wilderness would encourage preservation of scenic quality Class A scenery in the North Fork Canyon and parts of Juniper Mountain, and Class B scenery in the remainder of the WSAs. This amounts to over 20,000 acres of juniper forest and 60 roadside miles.

Wilderness would also allow present climax juniper forests and their scenic quality. The expansion of juniper forests would create a landscape of more shade and of framed vistas, and create a greater feeling of isolation and enclosure.

H. ECONOMIC EFFECTS

Under this alternative the number of AUMs available after 20 years would increase by 10,310 AUMs through intensive grazing management and land treatment projects in the impacted allotments. Range improvements necessary to realize this increase in AUMs would amount to $328,700 in structural improvements and $269,100 in land treatments (outside the WSAs but on the impacted allotments). Annual income gains by ranchers would amount to $44,600 by year 5 and $151,000 by year 20. See Appendix 3, Table 2 for allotment specific data concerning the economic impact of curtailing vegetation manipulation within the wilderness areas.

Roughly $72,000 of the range improvements would be purchased in Owyhee County. Since the structural improvements would be spread over 5 years and the land treatments over 15 years, the secondary impacts associated with range improvements would not be significant. The increase in rancher income would lead to annual secondary income increases of $18,000 by year 5 and $61,000 by year 20.

The benefit/cost ratio of implementing this alternative, considering only rancher income gains and range improvement costs, would be 1.68. This means that for every $1.00 in costs, $1.68 in benefits are returned.

PARTIAL WILDERNESS ALTERNATIVE #1 - NORTH FORK OWYHEE RIVER

A. WILDERNESS CHARACTERISTICS

The suitable recommendation would include about 47,955 acres of the juniper component of the Sagebrush Steppe ecosystem. Impacts on Juniper Mountain WSAs are the same as for the No Action/No Wilderness Alternative. Impacts on the North Fork Owyhee River WSA are the same as the All Wilderness Alternative.

B. VEGETATION

Partial Wilderness Alternative #1 would have the same impact as the No Action/No Wilderness Alternative in WSAs 16-41, 42, 45, and 47. The impact on WSA 16-40 would be the same as the All Wilderness Alternative.

C. SOILS AND WATERSHED

For WSA 16-40, see the All Wilderness Alternative. For other WSAs, see the No Action/No Wilderness Alternative.

D. RANGE

Upon wilderness designation, the North Fork Owyhee River area would be managed under the Wilderness Management Policy which would effectually place constraints on livestock grazing, vegetation manipulation, and the construction of new and maintenance of existing structural rangeland improvements. A narrative on these constraints is given in the All Wilderness Alternative.

Based on the Owyhee Grazing EIS, projected livestock use after a 20-year period would increase above the current active preference in those allotments potentially affected by wilderness designation. Projected increases in livestock use are predicated primarily on the implementation of land treatment projects and intensive grazing management.

As under the No Action/No Wilderness Alternative, vegetation manipulation practices would be implemented as scheduled in the Owyhee Grazing EIS in the four Juniper Mountain WSAs.

The impact of wilderness designation is shown in Appendix 3, Table 1, for the affected allotments. A comparison of the percent change from active preference under Partial Wilderness Alternative #1 to the current active preference shows an increase in six allotments, which ranges from <+1% to +64%, and a decrease in two allotments of -22% and -26%. The total increase from active preference for the affected allotments is +34%, which is a 91% increase over the livestock competitive AUM allocation. Appendix 3, Table 3, shows the above changes by individual WSA for this alternative.

E. WILDLIFE

This partial wilderness alternative would limit vegetation manipulation on 4,974 acres classified as treatable. A potential of 32 AUMs for wildlife would not occur due to the limited manipulation of the juniper invaded areas. A potential of 58 AUMs in the Juniper Mountain WSA could provide habitat to increase mule deer populations by 325 animals. All other wildlife habitat improvement proposals for the North Fork Owyhee River Wilderness would be affected the same as in the All Wilderness Alternative. The Juniper Mountain wildlife habitats would be affected as in the No Action/No Wilderness Alternative.

F. RECREATION

Congressional designation of a 47,955 acre North Fork Owyhee River Wilderness would maintain outstanding opportunities for solitude and primitive recreation, and protect natural and scenic values which enhance the recreation experience within the affected area.

The 94,000 acres of Juniper Mountain including its four WSAs would receive further planning as a Special Recreation Management Area would be and managed to provide primitive and semi-primitive, motorized, and nonmotorized recreation opportunities as addressed in the No Action/No Wilderness Alternative.

Recreation use may increase to about the same level as the All Wilderness Alternative with the same possible results. Fourteen miles of low-standard roads and ways would be closed to recreational motor vehicle use.

Hunting opportunities would improve because of land treatments. The effect on fishing would be the same as under the All Wilderness Alternative.

G. SCENIC RESOURCES

The scenic quality of the North Fork Owyhee River area would be protected as in the All Wilderness Alternative. The Juniper Mountain areas would be degraded as in the No Action/No Wilderness Alternative. About 27 roadside miles would be protected by the North Fork Owyhee River Wilderness. This mileage is about one-half of the total of cherry stem and boundary road miles of the WSAs.

H. ECONOMIC EFFECTS

Under this alternative, the number of AUMs available after 20 years would increase by 12,716 AUMs through intensive grazing management and land treatment projects in the impacted allotments. Range improvements necessary to realize this increase in AUMs would amount to $328,700 in structural improvements and $459,900 in land treatments (outside the WSAs but in the impacted allotments). Annual income gains by ranchers would amount to $56,000 by year 5 and $186,000 by year 20. See Appendix 3, Table 2 for allotment specific data concerning the economic impact of curtailing vegetation manipulation within the wilderness area.

Roughly $95,000 of the range improvements would be purchased in Owyhee County. Since the structural improvements would be spread over 5 years and the land treatments over 15 years, the secondary impacts associated with range improvements would not be significant. The increase in rancher income would lead to annual secondary income increases of $27,000 by year 5 and $74,000 by year 20.

The benefit/cost ratio of implementing this alternative, considering only rancher income gains and range improvement costs, would be 1.67. This means that for every $1.00 in costs, $1.67 in benefits are received.

PARTIAL WILDERNESS ALTERNATIVE #2 - NORTH FORK OWYHEE RIVER

A. WILDERNESS CHARACTERISTICS

The suitable recommendation would include about 41,550 acres of the juniper component of the Sagebrush Steppe ecosystem. Impacts on the Juniper Mountain WSAs are the same as the No Action/No Wilderness Alternative.

Within each WSA there would be a short-term loss of apparent naturalness as detailed under the No Action/No Wilderness Alternative but to a lesser extent in those portions of WSA 16-40 recommended for wilderness because of the special stipulations for land treatment methods. There should be no permanent loss of apparent naturalness in any WSA.

Loss of juniper cover could reduce some opportunities for solitude in each WSA. Some increases in recreation use could also reduce opportunities for solitude. However, as under the All Wilderness Alternative, opportunities for solitude would be maintained with indirect and, if necessary, direct management of visitor use within the portions of WSA 16-40 recommended as suitable for wilderness.

Opportunities for primitive recreation would be known to more people because of publicity associated with the wilderness designation process. These opportunities would be enhanced within WSA 16-40 by greater diversity in vegetation and increases in the deer population resulting from vegetation manipulation. In the other WSAs, more widespread land treatments would affect recreation opportunities as described in the No Action/No Wilderness Alternative.

B. VEGETATION

The impact of this alternative on vegetation would be very similar to that described under the No Action/No Wilderness Alternative unless desired results were not achieved within the specified time limits. Special stipulations to allow mechanical and chemical treatment of vegetation within wilderness would be limited to a 15-year period from the time of wilderness designation. With this time limitation, it may not be possible to create conditions favorable to the re-establishment of fire dependent sagebrush-bunchgrass communities. Shrubs and grasses provide the fuel base which ensures fire spread and the corresponding maintenance of natural fire regimes. Retreatment by mechanical or chemical means would not be permitted after 15 years, and a continual prescribed program would be limited to a case-by-case basis. The open sagebrush-bunchgrass areas may revert back to areas of juniper encroachment and declining ecological condition unles prescribed burning remains an unconstrained practice.

C. SOILS AND WATERSHED

All WSAs should show slight overall improvement in watershed condition due to improvement in ground cover from grazing systems and land treatments, water management structures, and reduced soil erosion.

D. RANGE

The Wilderness Management Policy, under which the North Fork Owyhee River area would be managed upon designation as wilderness, would impose constraints on livestock grazing, vegetation manipulation, and the construction of new and maintenance of existing structural rangeland improvements. These constraints are the same as those described under the All Wilderness Alternative.

Based on the Owyhee Grazing EIS, projected livestock use after a 20-year period would increase above the current active preference in those allotments potentially affected by wilderness designation. Projected increases in livestock use are predicated primarily on the implementation of vegetation manipulation and intensive grazing management.

As under the No Action/No Wilderness Alternative, vegetation manipulation would be implemented as scheduled by the Owyhee Grazing EIS in the four Juniper Mountain WSAs.

The impact of wilderness designation is shown in Appendix 3, Table 1, for the affected allotments. A comparison of the percent change from active preference under Partial Wilderness Alternative #2 to the current active preference shows an increase in six allotments, which ranges from <+1% to +65%, and a decrease in two allotments of -15% to -25%. The total increase in active preference for the affected allotments is +34%, which is a 91% increase over the livestock competitive AUM allocation. Appendix 3, Table 3, shows the above changes by individual WSAs for this alternative.

E. WILDLIFE

The Partial Wilderness Alternative #2 would allow vegetation manipulation on the 4,974 acres of the North Fork Owyhee River WSA which are classified as treatable with special stipulations. Wildlife habitat would generally be improved in the same manner as the No Action/No Wilderness Alternative. The potential increase in AUMs could provide habitat for more than a 500 animal increase in mule deer populations because mule deer would not compete for the additional AUMs with livestock in the North Fork Owyhee River Wilderness.

F. RECREATION

This alternative is similar to Partial Wilderness Alternative #1 with the exception that primitive recreation values on 6,405 fewer acres would be protected by wilderness designation and 10 rather than 14 miles of low-standard roads and ways would be closed to motor vehicle use by recreationists.

Opportunities for big game hunting would improve as in the No Action/No Wilderness Alternative. Vegetative manipulation and stream stabilization would result in a loss of primitive recreation values as described in the No Action/No Wilderness Alternative.

G. SCENIC RESOURCES

Scenery protection would be lost on 9 miles, or 33%, of the North Fork Owyhee River WSA boundary. The long-term scenic quality of the interior of the WSA would not be affected significantly because it is less treatable, and methods of treatment would pay special attention to protection of scenic quality as in the All Wilderness Alternative. However, during the short term, while land treatments are occurring, scenic quality would be diminished. All other areas would be degraded as in the No Action/No Wilderness Alternative.

H. ECONOMIC EFFECTS

Under this alternative, the number of AUMs available after 20 years would increase by 12,799 AUMs through intensive grazing management and land treatment projects in the impacted allotments.

Range improvements necessary to realize this increase in AUMs would amount to $328,700 in structural improvements and $462,200 in land treatments (outside the WSAs but in the impacted allotments). Annual income gains by ranchers would amount to $56,000 by year 5 and $187,000 by year 20. See Appendix 3, Table 2, for allotment specific data concerning the economic impact of curtailing vegetation manipulation in the wilderness area.

Roughly $95,000 of the range improvements would be purchased in Owyhee County. Since the structural improvements would be spread over 5 years and land treatments over 15 years, the secondary impacts associated with range improvements would not be significant. The annual secondary income increases resulting from increases in rancher income would amount to $23,000 in year 5 and $75,000 by year 20.

The benefit/cost ratio of implementing this alternative, considering only rancher income gains and range improvement costs, would be 1.67. This means that for every $1.00 in costs, $1.67 in benefits are received.

PARTIAL WILDERNESS ALTERNATIVE #3 - NORTH FORK OWYHEE RIVER AND BIG WILLOW SPRING

A. WILDERNESS CHARACTERISTICS

The suitable recommendation would include 47,650 acres of the juniper component of the Sagebrush Steppe ecosystem. Areas not recommended as suitable for wilderness would have the same impacts identified in the No Action/No Wilderness Alternative. The North Fork Owyhee River and Big Willow Spring WSAs would have impacts as identified for the North Fork Owyhee River under Partial Wilderness Alternative #2.

B. VEGETATION

Under this alternative, the impact to vegetation would be the same as that described under Partial Wilderness Alternative #2.

C. SOILS AND WATERSHED

All WSAs should show a slight overall improvement in watershed condition due to improvement in ground cover, reduced soil erosion, and water management structures.

D. RANGE

Upon wilderness designation in the North Fork Owyhee River and Big Willow Spring areas, constraints would be imposed on livestock grazing, vegetation manipulation, and the construction of new and maintenance of existing structural rangeland improvements. These constraints imposed by wilderness designation would be the same as those described under the All Wilderness Alternative.

Based on the Owyhee Grazing EIS, projected livestock use after a 20-year period would increase above the current active preference in those allotments potentially affected by wilderness designation. Projected increases in livestock use are predicated primarily on the implementation of intensive grazing management and vegetation manipulation projects.

Within WSAs 16-42, 16-45, and 16-47, vegetation manipulation would be implemented as scheduled by the Owyhee Grazing EIS.

The impact of wilderness designation is shown on Appendix 3, Table 1, for the affected allotments. A comparison of the percent change from active preference under Partial Wilderness Alternative #3 to the current active preference shows an increase in six allotments, which ranges from <+1% to +65%, and a decrease in two allotments of -15% and -25%. The total increase in active preference for the affected allotments is +34%, which is a 91% increase over the livestock competitive AUM allocation. Appendix 3, Table 3, shows the above changes by individual WSA for this alternative.

E. WILDLIFE

The Partial Wilderness Alternative #3 would allow vegetation manipulation in the WSAs as in Alternative #2 but would include WSA 16-41 which has 434 acres classified as treatable and this would have an additional potential of 2 AUMs for wildlife habitat. The wildlife habitat would be improved in the same manner as described under the No Action/No Wilderness Alternative.

F. RECREATION

This alternative is similar to the Partial Wilderness Alternative #2 with the exception that primitive recreation values would be protected by wilderness designation on 47,650 acres rather than 41,550 acres.

G. SCENIC RESOURCES

With this alternative, non-wilderness areas and 60% of WSA boundary roads would be degraded as in the No Action/No Wilderness Alternative. The interior areas of the North Fork Owyhee River and Big Willow Spring WSAs would be affected as in Partial Wilderness Alternative #2.

H. ECONOMIC EFFECTS

Under this alternative, the number of AUMs available after 20 years would increase by 12,709 AUMs through intensive grazing management and land treatment projects in the impacted allotments. Range improvements necessary to realize this increase in AUMs would amount to $328,700 in structural improvements and $459,100 in land treatments (outside the WSAs but inside the impacted allotments).

Annual income gains by ranchers would amount to $56,000 by year 5 and $186,000 by year 20. See Appendix 3, Table 2, for allotment specific data concerning the economic impact of curtailing vegetation manipulation in the wilderness areas.

Roughly $95,000 of the range improvements would be purchased in Owyhee County. Since the structural improvements would be spread over 5 years and land treatments over 15 years, the secondary impacts associated with range improvements would not be significant. The annual increase in rancher income would lead to secondary income increases of $23,000 by year 5 and $74,000 by year 20.

The benefit/cost ratio of implementing this alternative, considering only rancher income gains and range improvement costs, would be 1.66. This means that for every $1.00 in costs, $1.66 in benefits are received.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY AND IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

The relationship between the short-term use of the Owyhee Wilderness Amendment/EIS area and its long-term productivity are shown in the table on the following page. Short-term uses cover a time span of up to 20 years. Long-term productivity goes beyond 20 years.

Irreversible means once an action is initiated it would continue indefinitely. Irretrievable means once a resource is used up it cannot be replaced. The wilderness study has determined that there are no significant irretrievable or irreversible commitment of resources.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

Alternatives	Short-Term Uses	Long-Term Productivity
No Action/No Wilderness	All present uses would continue.	38% more available AUMs in affected allotments after 20 years. Improvement in ecological condition of plant communities resulting in overall improvement in vegetation production. Overall improvement in watershed condition. Improved wildlife and aquatic habitat and production.
All Wilderness	Grazing use would continue at about the same level within wilderness. Vehicle use would be prohibited except for authorized individuals. Mineral and energy production not available after 12/31/83.	21% more available AUMs in affected allotments after 20 years if grazing system can be fully implemented. Improvement in overall ecological condition of plant communities with stagnation or decline possible in some areas, thereby resulting in at least overall improvement in vegetation production. No basic change in watershed condition. Less improvement in wildlife and aquatic habitat and production.
Partial Wilderness #1	Grazing use would continue at the same level within wilderness. Vehicle use would be prohibited in wilderness except for authorized vehicles. Mineral and energy production potential not available after 12/31/83 in wilderness areas.	32% more available AUMs in affected allotments after 20 years if grazing systems can be fully implemented. Less overall improvement in ecological condition of plant communities and, therefore, vegetation production because of minimal improvement in wilderness areas. Less improvement in overall wildlife and aquatic habitat and production because of no change within wilderness.
Partial Wilderness #2	Same as Partial Wilderness #1	33% more available AUMs in affected allotments after 20 years if grazing systems can be fully implemented. Other resource productivity somewhat less than in the No Action/No Wilderness.
Partial Wilderness #3	Same as Partial Wilderness #1	32% more available AUMs in affected allotments in 20 years if grazing systems can be developed. Other resource productivity is somewhat less than as in the No Action/No Wilderness.

CHAPTER VI
COORDINATION, CONSISTENCY, AND PUBLIC PARTICIPATION

A. COORDINATION AND CONSULTATION

Coordination and consultation has been a continuing process beginning in 1978 with the initial inventory of BLM lands to determine areas with wilderness characteristics. The issue identification and alternative formulation process for this Amendment/EIS involved individual contacts with state agencies, county government, range users, and other interest groups who are affected by the proposed action. The Boise District held public meetings and mailed informational packets to approximately 400 individuals, interest groups, local government agencies, and elected officials. The scoping process for the Amendment/EIS is outlined in Chapter II. Those government agencies, elected officials, and interest groups who participated in the planning process are listed under Public Participation of this chapter.

B. CONSISTENCY

No formally approved land management plan affects the WSAs other than the Owyhee Resource Area Management Framework Plan which is under consideration for amendment in this document.

C. PUBLIC PARTICIPATION

The Boise District prepared a Wilderness Study Public Participation Plan as a continuation of the public review process begun during the wilderness inventory process. Public participation in the inventory was under the guidance of the BLM Idaho State Office Public Participation Plan. The District plan coordinates all wilderness studies for different planning efforts in the District to maintain consistency between issue identification and the BLM Wilderness Study Policy.

Those government agencies, elected officials, and interest groups that participated in the planning process by providing input during the inventory and study phases for the Draft Amendment/EIS are listed below.

1. Interest Groups

Boise State University Conservation Group
Caldwell Chamber of Commerce
Committee for Idaho's High Desert
Friends of the Earth
Greater Snake River Land Use Congress
Idaho Cattlemen's Association
Idaho Conservation League
Idaho Environmental Council
Nampa Chamber of Commerce
National Audubon Society
Oregon High Desert Study Group

Owyhee Cattlemen's Association
Sierra Club
Wilderness Society

2. State Agencies

Idaho Department of Fish and Game
Idaho Department of Lands
Idaho Department of Parks and Recreation
Idaho Land Board

3. Elected Officials

Federal:
  Congressman Larry Craig
  Senator James McClure
  Senator Steve Symms

State:
  Governor John Evans

Local:
  Owyhee County Commissioners

D. AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM DRAFT SENT

The Draft Owyhee Wilderness Plan Amendment/EIS will be distributed to the following government agencies, organizations (interest groups), individuals, and elected officials for review and comment.

1. Federal Agencies

Department of Agriculture:
Soil Conservation Service

Environmental Protection Agency

Department of the Interior:
U.S. Bureau of Indian Affairs
U.S. Bureau of Mines
U.S. Fish and Wildlife Service
U.S Geological Survey

2. State Agencies or Boards

Department of Agriculture
Department of Fish and Game
Department of Health, Welfare, and Environmental Services
Department of Lands
Department of Parks and Recreation
Department of Transportation
Department of Water Resources
Historic Preservation Officer (Idaho Historical Society)

Idaho State Clearing House
Idaho Outfitters and Guides
University of Idaho Extension Service

3. Local Agencies

Owyhee County Historic Preservation Officer

4. Elected Officials

Federal:
- Congressman Larry Craig
- Congressman George Hansen
- Senator James McClure
- Senator Steve Symms

State:
- Governor John Evans
- Representative Gerry Montgomery
- Representative Lyman Winchester
- Senator Yarborough

Local:
- Ada County Commissioners
- Canyon County Commissioners
- Malheur County Commissioners (Oregon)
- Owyhee County Commissioners

5. Advisory Councils

Boise District Advisory Council
Boise District Grazing Advisory Board

6. Organizations

Boise State University Conservation Group
Caldwell Chamber of Commerce
Committee for Idaho's High Desert
Federation of Western Outdoor Clubs
Friends of the Earth
Greater Snake River Land Use Congress
High Country News
Idaho Cattlemen's Association
Idaho Conservation League
Idaho Environmental Council
Idaho Gun Club
Idaho Mining Association
Idaho Natural Areas Coordinating Committee
Idaho Outdoor Association
Nampa Chamber of Commerce
National Audubon Society
National Wildlife Federation
Nature Conservancy

Northwest Mining Association
Oregon High Desert Study Group
Oregon Wilderness Coalition
Owyhee Cattlemen's Association
Owyhee County Gem and Mineral Society
Sierra Club
Wilderness Society
Wildlife Society

7. Concerned Individuals and Businesses

Affected grazing permittees
Other individuals
Businesses or industries (i.e., minerals and energy)

LIST OF PREPARERS

Name	Position	Amendment/EIS Responsibilities	Education	Experience
Steve Addington	Recreation Planner	Wilderness resource, assistant editing	B.A. Anthropology Central Washington State College	1 1/2 years with BLM as Recreation Planner/ Wilderness Specialist
Fred Anderson	Geologist	Geology and minerals	B.S. Geology Oregon State University	4 years with U.S. Geologic Survey 4 years with Federal Highway Administration 7 years with BLM
Oscar Anderson	Owyhee Resource Area Manager	Management review - selection of proposed action	B.S. Range Management University of Idaho	20 years with BLM as Soil and Watershed Specialist, Assistant Area Manager, and Area Manager (Owyhee, 6 years)
John Benedict	Wilderness Coordinator-Recreation Planner	Document planning, editing, coordination of EIS team, alternative formulation, alternative evaluation	B.S. Forestry University of California, Berkeley	7 years with BLM as Recreation Technician and Wilderness Specialist/ Coordinator
Paul Card	Sociologist - (Idaho State Office)	Sociology	B.S. Mathematics B.S. Sociology Eastern Washington State College	5 years Idaho Transportation Department working on environmental documents 2 years Executive Office of Governor of Idaho 3 years with BLM as Sociologist
Dana Danzer	Range Conservationist	Soils and watershed	B.S. Fish and Wildlife Management Montana State University	5 years with BLM as Range Conservationist

LIST OF PREPARERS (continued)

Name	Position	Amendment/EIS Responsibilities	Education	Experience
Mark Davis	Landscape Architect	Scenic resources	B.A. Landscape Architecture Penn State University M.A. Landscape Architecture University of Massachusetts	1 year private business 1 year Bureau of Reclamation 1 1/2 years Economic Development Administration 2 Presidential Committees for Heritage Conservation and Recreation Service 3 years with BLM as Landscape Architect
Stan Frazier	Economist (Idaho State Office)	Economics	B.S. Agricultural Economics Oregon State University	7 years with BLM as Economist
Larry Gould	Wildlife Management Biologist	Wildlife	B.S. Biology Boise State University	5 years seasonally and 1 year continuous with BLM as Wildlife Biologist
John Hays	Recreation Planner	Issue identification, planning background, NEPA goals.	B.A. Psychology Seattle University M.S. Forestry/Outdoor Recreation Management University of Washington	5 years seasonally National Park Service as Ranger and Public Information Officer 3 years with BLM as Recreation Planner
Jack LaRocco	Range Conservationist	Range vegetation	B.S. Wildlife and Range Management Humboldt State University	2 1/2 years Soil Conservation Service 2 1/2 years Washington State Dept. of Resources 5 1/2 years with BLM as Range Conservationist and Wildlife Biologist
Walter Meyer	Recreation Planner	Recreation	B.S. Forestry Oregon State University	1 year with National Park Service 6 years U.S. Forest Service 6 years Bureau of Outdoor Recreation 11 years with BLM as Recreation Planner

LIST OF PREPARERS (continued)

Name	Position	Amendment/EIS Responsibilities	Education	Experience
Ted Milesnick	Environmental Specialist	Quality review	B.S. Range Management Montana State University	11 1/2 years with BLM as Range Conservationist and 4 years as EIS team member or leader.
Alan Sands	Wildlife Management Biologist	Wildlife	B.S. Geography San Diego State University M.S. Wildlife Management Humboldt State University	4 years San Luis Obispo County as Regional Planner 2 years State of California as Natural Resource Specialist 6 1/2 years with BLM as Wildlife Biologist
Bil Weigand	Planning Coordinator	Planning review	B.A. Geography M.S. Geography Kansas State University	10 years with BLM as Realty Specialist, Environmental Coordinator, Planning Coordinator
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GLOSSARY

Active Grazing Preference - That portion of the total grazing preference that could be licensed and used should the livestock operator desire.

Adequate Access - The combination of routes and modes of travel which will cause the least lasting impact on the wilderness resource, and at the same time serve the reasonable purposes for which the state or private land is held or used.

Allotment Management Plan - A plan that prescribes how livestock operations will be conducted in a grazing allotment.

Animal Unit Month (AUM) - The amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month.

Brush Control - Vegetation manipulation to reduce the amount of shrubs or trees in an area.

Chaining - Dragging an anchor chain between two bulldozers to uproot undesirable trees or shrubs.

Channel Erosion - The erosion of land associated with water courses, both perennial and intermittent.

Chemical Treatment - The use of chemical agents to change vegetative composition of an area.

Cherry Stem Road - A road that penetrates the interior of a WSA but does not divide it into two separate areas.

Climax Juniper/Rock Outcrop Ecological Site - An area where the climax vegetation community is visually dominated by juniper and rock outcrops.

Climax Vegetation - The final vegetative community that emerges after a series of successive vegetational stages.

Competitive AUM Allocation - The amount of current allowable AUMs available to livestock or a wildlife species in question.

Current Allowable AUMs - Amount of forage available for use based upon current vegetation condition.

Ecological Condition - The present state of vegetation in an area in relation to the climax (natural potential) plant community the area is capable of supporting.

Ecological Site - Classification of an area based on vegetation potential (kind, amount, and proportion) which is determined by soils and other environmental factors.

Ecological (Vegetation) Potential - The potential for vegetation to grow in response to environmental factors such as competition with other plant species, moisture, and soil conditions.

Endangered Species - Any species in danger of extinction throughout all or a significant portion of its range.

Fifty Percent Utilization of Key Species - Grazing use that is adjusted so that 50% of the annual forage produced by the plants will not be consumed.

Five (5)-Year Licensed Livestock Use - Five-year average number of AUMs permitted on public range.

Forage - Browse and herbaceous foods that are available to grazing animals.

Ground Cover - The percentage of ground covered by living plants or dead parts of plants.

Land Treatments - Management actions to change the vegetative composition of an area.

Management Framework Plan (MFP) - A BLM planning document that outlines multiple use management objectives for an area. Replaced by the Resource Management Plan (RMP).

Mechanical Treatment - The use of mechanized equipment to change vegetative composition of an area.

Multiplier - The ratio between the increase of income arising from an increment of investment and the investment itself.

Naturalness - Refers to an area which "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable" (from Section 2(c), Wilderness Act of 1964).

ORVs - Any motorized vehicle designed for or capable of cross-country travel.

Permittees - Livestock operators who have grazing privileges on public lands.

Primitive Recreation - Nonmotorized and nondeveloped types of outdoor recreational activities in a natural setting featuring a maximum degree of solitude and challenge.

Rangeland Improvements - Any structural or nonstructural improvement which directly affects or supports the use of the forage resource by domestic livestock, such as fences, line cabins, water lines, and stock tanks.

Resource Area - A geographic portion of a BLM district that is the smallest administrative subdivision in the Bureau.

Resource Management Plan (RMP) - A BLM planning document that outlines multiple use management objectives for an area.

Rotation Grazing Systems - Systems that adjust the grazing use from year to year to reduce grazing impact on vegetation.

Sagebrush Ecological Site - An area where the climax vegetation community is visually dominated by sagebrush species.

Scoping Process - Public participation process used to identify issues to be addressed in planning.

Semi-Primitive Recreation - Nonmotorized or motorized and nondeveloped types of outdoor recreation in settings where standards for naturalness and opportunities for solitude and challenge are not as stringent as primitive recreation settings.

Sensitive Species - Species whose ranges are so limited that any reductions in numbers, habitat availability, or habitat condition could result in their being placed on the endangered list.

Seral Juniper Stands - Plant communities that are part of a successional stage and not the climax community for an area.

Sheet Erosion - The removal of a fairly uniform layer of soil from the land surface by runoff water or wind.

Site (Archaeological) - A physical location where primitive and historic human activities or events occurred which can be used to document human history.

Solitude - The state of being alone or remote from habitations; isolation. A lonely, unfrequented, or secluded place.

Suitability/Nonsuitability - A recommendation or decision whether to designate or not designate wilderness.

Supplemental Values - Resources associated with wilderness which contribute to the quality of wilderness areas.

Treatable - Those lands that meet the criteria for land treatments set by the Owyhee MFP.

Uncommon Species - Species that are not endangered or sensitive but are uncommon in the state of Idaho.

Vegetation Manipulation - To change the vegetative composition of an area.

Visual Resource Management (VRM) Classes - Classification of landscape according to scenic quality, public sensitivity, and visibility for major viewing points. Used to assess the visual impact of proposed developments.

VRM Class II - Areas where new developments should not be evident in the characteristic landscape.

VRM Class III - Areas where new developments may contrast with the landscape but should remain subordinate to the landscape.

VRM Class IV - Areas where new developments may contrast with the landscape but may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements.

Wilderness Study Area (WSA) - A roadless area that has been inventoried and found to have wilderness characteristics as described in Section 603 of FLPMA and Section 2(c) of the Wilderness Act of 1964.

APPENDIX 1

WILDERNESS STUDY: 16-40
OWYHEE RESOURCE AREA
INTENSIVE INVENTORY

WILDERNESS RESOURCE CHARACTERISTICS

1) SIZE AND CONFIGURATION

The North Fork of the Owyhee River WSA, 16-40, contains 49,470 acres of public land (previously measured at 55,147 acres). It is 13.75 miles long and varies between 2 miles and 10 miles in width. The narrowest width of the WSA is in a large land finger in the westernmost portion. Most of the WSA acreage is contained within a block of public land 8 to 10 miles square.

There are five cherry stem roads penetrating into the main body of the WSA for distances of up to 3 miles; the total mileage of cherry stem roads is 11 miles. These cherry stem roads occur in 2 groupings. The three cherry stem roads penetrating from the northern boundary of the WSA occur somewhat parallel to each other at distances of 1.5 miles to 4 miles. The cherry stem roads penetrating from the southeast boundary also run parallel to each other at a distance of 2.5 miles.

There are 3 state sections contained within the perimeter of the WSA. One of these state sections, Section 36, T. 9 S., R. 4 W., is serviced by one of the southeastern cherry stem roads. The other two state sections are not serviced by cherry stem roads or peripheral boundary roads. However, roads come within .25 and .5 miles of these state sections.

There are no private inholdings within the WSA.

The large size of the WSA plus its configuration and the distribution of cherry stem roads makes practical the preservation and use of much of the land within the WSA in an unimpaired condition. Some adjustments in the WSA boundary may be necessary to make any wilderness designation more manageable.

2) NATURALNESS

A WSA must appear to be affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. Most rangeland developments or imprints are permissable within WSAs, but they must be of such a number and distribution throughout a WSA that their presence does not impair the overall apparent primeval or natural character of the WSA.

The intensive wilderness inventory identified the following imprints of man within the WSA:

a) 8.5 miles of ways (vehicle routes which show no sign of construction or maintenance; where vehicle tracks are maintained solely by the passage of vehicles).

b) 17 miles of fence line and numerous gap fences.

c) 6 water developments (2 stock water tanks and 4 stock ponds).

d) 1 abandoned log cabin.

e) 1 abandoned corral.

Imprints legally outside the WSA are:

a) 1 large stock reservoir located at the end of one of the southeastern cherry stem roads.

b) 1 metal building, 1 developed spring and 1 corral located at the end of the western cherry stem road.

c) 4 stock ponds along peripheral boundary roads.

The location, number and relative distribution of these imprints of man combined with topographic and vegetative screening makes the imprints substantially unnoticeable in the WSA as a whole. Few of the imprints are located within the major corridors of travel. Visual contact with most imprints is extremely localized because of vegetative screening or a combination of vegetative and topographic screening. A primitive recreationist's visual encounter with imprints would be infrequent and brief.

3) OPPORTUNITIES FOR SOLITUDE

A WSA is considered to have outstanding opportunities for solitude if it has 1) a large enough size and suitable configuration so topographic relief and vegetative cover can provide plentiful screening among visitors groups and from external influences, and 2) a topographic layout combined with suitable configuration which would tend to disperse visitor groups throughout the WSA. If topographic relief tends to concentrate visitors into small or narrow corridors within the WSA, the corridors must be sufficiently long enough and provide plentiful topographic and/or vegetative screening so as to lessen the impact of the corridor effect.

The North Fork of the Owyhee WSA is divided into 3 major types of topographic regions:

a) The main canyons and tributary canyons of the North Fork Owyhee River and Current Creek. These canyons are typically narrow, meandering, sheer-walled and have well vegetated riparian zones.

b) The very rugged hilly region occupying all of the northern and eastern portions of the WSA. This region is the headwaters for both the North Fork Owyhee River and Current Creek. The region is typified by a mosaic of rugged, barren rock outcrop areas intermixed with light to dense stands of juniper.

c) The flat to gently rolling plateau region occupying most of the southern portion of the WSA. This plateau region is typified by sparse, low sagebrush and grass vegetation with scattered stands of juniper.

The intensive wilderness inventory of the WSA determined that its rugged canyon and hilly juniper covered topography provides both excellent screening among visitor groups and excellent potential for dispersed recreational use.

It is recognized that the two main canyons within the WSA have the potential to concentrate visitors in 2 narrow corridors of use and increase the opportunity for visitor interaction. However, the length of these 2 canyons (17.5 miles total), the canyons' meandering character, the presence of riparian vegetation, and the number and length of tributary canyons would greatly minimize any potential corridor effect.

There are 7 side canyons of comparable scenic quality (totalling 12.5 miles in length) which would attract visitors away from the main canyons. These tributary canyons, as well as the main canyons, have the potential to disperse recreational use throughout the rugged hilly region within the northern two thirds of the main body of the WSA. Once dispersed into this hilly region, recreation user groups would be well screened and further dispersed by hundreds of small draws and depressions formed by large rock outcrops or small juniper covered hills. Because of the physical similarity and equivelant physical challenge associated with traveling along these draws, visitors would not tend to concentrate in any one area within the hilly region.

Any visitor groups which would concentrate within the two main canyons or seven tributary canyons, (particularly in the narrow western land finger dominated by the North Fork Owyhee River Canyon), would be well screened from each other by the meandering, sheer canyon walls and/or dense riparian vegetation. The 30 miles of canyons available for hiking provide numerous isolated campsites which would allow visitors to be out of sight and sound of other visitor groups. Furthermore, the length of the canyons would provide more travel time and distance for visitor groups to adjust their travel rates and campsites locations to avoid interacation while hiking. Visual contact between user groups is generally not possible within the canyons at distances of 1/4 mile or less.

The dispersion potential on the southern plateau region is limited because of the size and configuration of the plateau and the potential for visitor concentration along the rimrock of the North Fork Owyhee River Canyon. Visitor use would tend to concentrate along the rimrock because scenic vistas of the rest of the WSA are spectacular. Along the rimrock area, as well as over much of the eastern half of the plateau region, there are scattered stands of juniper. These juniper stands combined with gently rolling topography dissect the eastern portion of the plateau into five small, isolated, very shallow sagebrush basins or flats. The sparse, low sagebrush vegetation within these basins or flats provides little screening. The sagebrush areas are not large enough to provide sufficient distance for other visitors within a given sagebrush area to blend or disappear into the landscape. However, topography and vegetation does provide excellent screening between areas.

In the western portion of the plateau region, the terrain is flatter and juniper is sparse. Visitor groups using this portion of the plateau region would generally be in visual contact with each other because it is relatively small and narrow, and sagebrush vegetation is low and sparse. There is not sufficient distance across the plateau to allow visitors to blend or disappear into the landscape except when looking lengthwise across the plateau. The broad open character of the plateau does, however, offer a sense of remoteness or isolation. This sense of isolation is intensified by the fact that the plateau drops off along the southern boundary of the WSA. While hiking at the higher plateau elevations, visitors are unable to see immediately adjacent landforms or external influences. This gives the WSA a sense of geographical separation from the rest of the Juniper Mountain area.

Visual contact with external influences such as boundary roads is also extremely limited in the hilly region of the WSA. The limited amount of construction (cut and fill) of northern peripheral boundary roads and cherry stem roads plus the density of juniper vegetation makes visual contact with the boundary roads limited to only a few feet inside the WSA.

Because of the large size and good configuration of the WSA, the presence of plentiful topographic and vegetative screening over much of the WSA, and the ability of topography to disperse visitor use, the WSA has outstanding opportunities for solitude.

4) OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

Outstanding opportunities for primitive and unconfined recreation within a WSA are dependent upon the size of the WSA in relation to its ability to provide exceptional or unusual natural features and recreational attractions. Exceptional natural features are defined as those topograhic and vegetative features which (1) provide exceptional scenery, (2) create a diversity of landforms, and/or (3) enable a visitor to achieve reasonable mobility within the WSA (nonconfinement). Such natural features would result in a strong recreational attraction to a WSA for one or more types of activities. A WSA is considered to have outstanding opportunities for primitive and unconfined recreation if the overall size of the WSA plus one or more of the factors contributing to exceptional natural features will give a visitor a sense of nonconfinement within an esthetically pleasing area. In WSAs where there are strong corridor effects, the corridor must be long enough to negate the sense of confinement. In addition, the corridor must be exceptionally scenic to make travel within the corridor enjoyable.

The intensive wilderness inventory determined that the WSA offers exceptionally scenic natural features and a diversity of topographic and vegetative landforms which allow for reasonable mobility throughout the WSA. These natural features provide a strong recreational attraction to people interested in backpacking, day hiking, sightseeing, nature photography, wildlife viewing, fishing, hunting and horseback riding.

As stated in the solitude narrative, the WSA has 3 major types of topographic regions including two major canyon systems, a large rugged hilly region, and a plateau region.

The main canyons and tributary canyons of the North Fork Owyhee River and Current Creek provide about 30 miles of exceptionally scenic, narrow, sheer-walled, meandering canyons with numerous beautiful reddish-brown rock spires and juniper trees.

The hilly region of the WSA has thousands of individual rock pillars or sculpters intermingled with stands of juniper. The rock formations and juniper stands join together to form a beautiful mosaic of rock and vegetation. The beauty of this region is intensified in the early spring when snow patches and moving water in numerous shallow draws adds to the spectrum of colors.

Because of the lack of understory vegetation, the numerous shallow draws and the moderate elevation changes, mobility throughout the hilly region is relatively easy. No sense of confinement is felt in this region. It should be noted that because of the numerous draws and rock formations, and the lack of major landmarks, it is easy to become disoriented in the region.

The ease of mobility within the bottoms of the main canyons and tributary canyons is somewhat hampered by the presence of riparian vegetation (trees and large shrubs). Travel along the canyon bottoms requires considerable time wading through the water. Such travel is made difficult during high water in the spring.

Despite the narrow character of the canyons, there is not a sense of confinement or entrapment over much of their length because of the relatively shallow nature of many of the canyons and the numerous side canyons and draws. The canyon terrain allows one to easily escape to the northern hilly region or southern plateau region. Only in the western finger of the WSA, where the canyon of the North Fork Owyhee River is over 400 feet deep and without many side drainages is one generally confined to traveling within the canyon or along the rimrock. The exceptional beauty of this portion of the canyon makes the confinement enjoyable.

The southern plateau region provides the visitor with a sense of vastness, remoteness or wide open space. This sense of vastness gives one the ultimate feeling of nonconfinement. Because of the amount of broken rock on the surface, travel across the plateau is time consuming and fatiguing. The hiker must be constantly aware of the placement of his/her feet. Any prolonged use of the plateau would result in a sense of monotony because of the similarity of terrain (though scenic) and the slow, fatiguing rate of travel.

Because of the diversity of exceptional scenic natural features in a large area where topography and vegetation generally do not restrict the reasonable mobility of the visitor, the WSA is considered to have outstanding opportunities for primitive and unconfined recreation.

5) SUPPLEMENTAL VALUES

The North Fork of the Owyhee River WSA contains supplemental values, including:

a) Scenic values

b) Wildlife values

c) Geological values

d) Ecological/scientific values

e) It may have archaeological values

6) SUMMARY

a) Size and Configuration - The WSA is 55,147 acres in size. The WSA is of sufficient size and configuration to make practical the preservation and use of most of the acreage in the WSA in an unimpaired condition.

b) Naturalness - The WSA appears to have been affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. The imprints of man are Congressionally acceptable forms of range improvement which are limited in number and so widely scattered that visitor encounters would be infrequent and brief.

c) Opportunities for Solitude - The WSA has outstanding opportunities for solitude because of its large size, the presence of plentiful topographic and vegetative screening, and the ability of topography to disperse visitor use.

d) Opportunities for Primitive and Unconfined Recreation - The WSA has outstanding opportunities for primitive and unconfined recreation because of its relatively large size, the diversity of natural features, the presence of exceptionally scenic natural features, and the ability of visitors to travel through the area without being confined by natural features.

e) Supplemental Values - The WSA has scenic, wildlife, geological and ecological/scientific values.

APPENDIX 1

WILDERNESS STUDY: 16-41
OWYHEE RESOURCE AREA
INTENSIVE INVENTORY

WILDERNESS RESOURCE CHARACTERISTICS

1) SIZE AND CONFIGURATION

The Big Willow (Horsehead) Spring WSA, 16-41, contains 6,210 acres of public land. It is five miles long and 1/4 mile to 3 1/4 miles wide in a somewhat triangular configuration.

There are no cherry stem roads penetrating into the WSA.

There are no state or private inholdings.

The configuration of the WSA and the lack of cherry stem roads makes practical the preservation and use of much of the land within the WSA in an unimpaired condition. Adjustments in the WSA boundary may be necessary to make any wilderness designation more manageable.

2) NATURALNESS

A WSA must appear to be affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. Most rangeland developments or imprints are permissible within WSAs, but they must be of such a number and distribution throughout a WSA that their presence does not impair the overall apparent primeval or natural character of the WSA.

The intensive wilderness inventory identified the following imprints of man within the WSA:

a) .75 miles of ways (vehicle routes which show no sign of construction or maintenance; where vehicle tracks are maintained solely by the passage of vehicles.

b) One developed spring.

c) 1.25 miles of fence line.

Imprints legally outside the WSA are:

a) One developed spring along the eastern boundary road.

The location, number and relative distribution of these imprints of man combined with topographic and vegetative screening makes the imprints substantially unnoticeable in the WSA as a whole. Few of the imprints are located within the major corridors of travel. Visual contact with most imprints are extremely localized because of vegetative screening or a combination of vegetative and topographic screening. A primitive recreationist's visual encounter with imprints would be infrequent and brief.

3) OPPORTUNITIES FOR SOLITUDE

A WSA is considered to have outstanding opportunities for solitude if it has (1) a large enough size and suitable configuration so topographic relief and vegetative cover can provide plentiful screening among visitor groups and from external influences, and (2) a topographic layout combined with suitable configuration which would tend to disperse visitor groups throughout the WSA. If topographic relief tends to concentrate visitors into small or narrow corridors within the WSA, the corridors must be sufficiently long enough and provide plentiful topographic and/or vegetative screening so as to lessen the impact of the corridor effect.

The Big Willow Spring WSA is divided into three major topographic areas:

a) The canyon and tributary canyons of Pole Creek reaching depths of 200 feet. The canyons are typically narrow and meandering with very dense riparian vegetation.

b) The northern breaks (Pole Creek Breaks) or hilly area typified by a number of shallow, rocky washes defined by numerous rock outcroppings. Western juniper is scattered throughout the breaks area.

c) The southern and eastern smooth or flattened ridge known as Horse Flat, which appears as a plateau-like formation covered with a vegetative mosaic of dense juniper stands and small sagebrush-grass openings.

The intensive wilderness inventory determined that the rugged canyons and juniper covered ridges and breaks of the WSA provide both excellent screening among visitor groups and excellent potential for dispersed recreational use.

It is recognized that canyons have the potential to concentrate visitors in narrow corridors of use and increase the opportunity for visitor interaction, especially in canyon systems as short (5 miles) as the one within the WSA. However, the fact that the canyon system radiates out from the center of the WSA in a number of different directions and has a meandering, densely vegetated character, the potential corridor effect is minimized.

The radiating canyon system has the potential to disperse recreational use throughout the WSA. Each of the canyons is of equal scenic quality and similar difficulty of travel. Therefore, use is not likely to concentrate in only one portion of the canyon system. Once visitor groups have been dispersed to the breaks or ridgeline areas, they would be further dispersed by numerous rugged washes (in the breaks area) or the vegetation patterns of juniper and sagebrush (on the flattened ridge area). Furthermore, vegetation and/or topography of the breaks and ridgeline areas provide excellent screening between any visitor groups that would be in close proximity to each other.

Any visitor groups which would concentrate in the canyon system (particularly the lower 1.25 miles of Pole Creek) would be well screened from each other by the meandering, sheer canyon walls and very dense riparian vegetation. Because of topographic and vegetative screening, visual contact between visitor groups in the canyon bottoms would be limited to several hundred feet or less.

The north side of Pole Creek Canyon in its lower 1.25 miles has a number of steep, yet passable, rocky washes which enable users to escape the canyon and disperse to the northern breaks area. Because of the difficulty of travel within the canyons due to dense riparian (shrub) vegetation, the canyons may serve more as scenic vistas for those traveling along the rims rather than as travel corridors.

Despite the small size of the WSA and the short length of canyons in the WSA, the dispersion potential of the radiating canyon system combined with the excellent topographic and vegetative screening throughout the WSA provides outstanding opportunities for solitude.

4) OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

Outstanding opportunities for primitive and unconfined recreation within a WSA are dependent upon the size of the WSA in relation to its ability to provide exceptional or unusual natural features and recreational attractions. Exceptional natural features are defined as those topographic and vegetative features which (1) provide exceptional scenery, (2) create a diversity of landforms, and/or (3) enable a visitor to achieve reasonable mobility within the WSA (nonconfinement). Such natural features would result in a strong recreational attraction to a WSA for one or more types of activities. A WSA is considered to have outstanding opportunities for primitive and unconfined recreation if the overall size of the WSA plus one or more of the factors contributing to exceptional natural features will give a visitor a sense of nonconfinement within an esthetically pleasing area. In WSAs where there are strong corridor effects, the corridor must be long enough to negate the sense of confinement. In addition, the corridor must be exceptionally scenic to make travel within the corridor enjoyable.

The intensive wilderness inventory determined that the WSA offers exceptionally scenic natural features and a diversity of topographic and vegetative landforms which allow for reasonable mobility throughout the WSA. These natural features provide a strong recreational attraction to people interested in backpacking, day hiking, sightseeing, nature photography, wildlife viewing, fishing, hunting and horseback riding.

As stated in the solitude narrative, the WSA contains terrain features varying from sheer-walled canyons to flat plateau-like areas and rock outcrop (or breaks) areas (all of which are accented by climax and seral stands of juniper).

The sheer canyon walls, canyon rims of rock spires intermixed with juniper, and the dense green vegetation of the canyon bottoms join together to create an exceptionally scenic natural feature.

Likewise, the large rock outcrops and juniper mosaic of the northern breaks area is also exceptionally scenic, particularly when there are remnant spring snowpacks adding to the color of the landscape.

The landforms not only provide exceptional scenery but also a diversity of terrain features for visitors to experience. Furthermore, the terrain is such that visitors can readily travel throughout the WSA without being limited by topographic barriers except between portions of the canyons and the southern plateau-like areas. It should be noted, however, that travel in portions of the canyons is extremely difficult because of dense riparian vegetation. It is likely that canyons will be used primarily for scenic vistas to enjoy while hiking along the rims.

Because of the exceptionally scenic natural features, the diversity of landforms compacted in a small area, and the ability of terrain features and vegetation (except in canyons) to allow reasonable mobility throughout much of the WSA, the WSA has outstanding opportunities for primitive and unconfined recreation.

5) SUPPLEMENTAL VALUES

The WSA contains supplemental values, including:

a) Scenic values

b) Geologic values

c) Wildlife values

d) It may have archaeological values

e) It may have ecological/scientific values

6) SUMMARY

a) Size and Configuration - The WSA contains 6,210 acres of public land. It is of sufficient size and configuration to make practical the preservation and use of much of the land in the WSA in an unimpaired condition.

b) Naturalness - The WSA appears to have been affected primarily by the forces of nature with the imprints of man substantially unnoticeable. The imprints are Congressionally acceptable forms of imprints which are limited in number and as widely scattered that visitor encounters would be infrequent and brief.

c) Opportunities for Solitude - The WSA has outstanding opportunities for solitude because of the dispersion potential of a radiating canyon system combined with excellent topographic and vegetative screening.

d) Opportunities for Primitive and Unconfined Recreation - The WSA has outstanding opportunities for primitive and unconfined recreation because of exceptionally scenic natural features, a diversity of landform, and the ability of terrain features to allow reasonable mobility throughout much of the WSA.

e) Supplemental Values - The WSA has scenic, geological, and wildlife values.

APPENDIX 1

WILDERNESS STUDY: 16-42
OWYHEE RESOURCE AREA
INTENSIVE INVENTORY

WILDERNESS RESOURCE CHARACTERISTICS

1) SIZE AND CONFIGURATION

The Squaw Creek Canyon WSA, 16-42, contains 10,780 acres of public land (previously measured at 11,379 acres). It is 7 miles long and 1 to 4 miles wide.

There are two cherry stem roads penetrating into the eastern half of the WSA for distances up to .75 miles; the total mileage of cherry stem roads is 1.25 miles. One cherry stem leads from the northern boundary road to a water development on the eastern rim of Squaw Creek Canyon. The other road runs along a fence line from the eastern boundary road until the fence drops over the eastern rim of Squaw Creek Canyon.

There are no private and state inholdings within the WSA.

The size of the WSA plus its configuration and the distribution of cherry stem roads makes practical the preservation and use of much of the land within the WSA in an unimpaired condition. Some adjustments in the WSA boundary may be necessary to make any wilderness designation more manageable.

2) NATURALNESS

A WSA must appear to be affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. Most rangeland developments or imprints are permissible within WSAs, but they must be of such a number and distribution throughout a WSA that their presence does not impair the overall apparent primeval or natural character of the WSA.

The intensive wilderness inventory identified the following imprints of man within the WSA:

a) 1.25 miles of ways (vehicle routes which show no sign of construction or maintenance; where vehicle tracks are maintained solely by the passage of vehicles).

b) 3.25 miles of fence line, over 1 mile of which is heavily bladed to the bottom of Squaw Creek Canyon.

c) One water development (stock pond).

Imprints legally outside the WSA are:

a) Four water developments located along the northern and eastern peripheral boundary roads and cherry stem boundary roads.

The location, number and relative distribution of these imprints of man combined with topographic and vegetative screening makes the imprints substantially unnoticeable in the WSA as a whole. Few of the imprints are located within the major corridors of travel. Visual contact with most imprints are extremely localized because of vegetative screening or a combination of vegetative and topographic screening. A primitive recreationist's visual encounter with imprints would be infrequent and brief.

3) OPPORTUNITIES FOR SOLITUDE

A WSA is considered to have outstanding opportunities for solitude if it has (1) a large enough size and suitable configuration so topographic relief and vegetative cover can provide plentiful screening among visitor groups and from external influences, and (2) a topographic layout combined with suitable configuration which would tend to disperse visitor groups throughout the WSA. If topographic relief tends to concentrate visitors into small or narrow corridors within the WSA, the corridors must be sufficiently long enough and provide plentiful topographic and/or vegetative screening so as to lessen the impact of the corridor effect.

The Squaw Creek Canyon WSA consists of a long descending ridge and alternating smaller ridges which break away to form a canyon over 5 miles long which reaches depths of 400 feet. The entire WSA is covered with dense to moderately dense stands of western juniper.

The intensive inventory of the WSA determined that the rugged, highly dissected mountainous and canyon terrain over the entire WSA plus widespread dense juniper vegetation provides both excellent screening among visitor groups and excellent potential for dispersed recreational use.

It is recognized that the canyon of Squaw Creek has a potential to concentrate visitors in a narrow corridor of use and increase the opportunities for visitor interaction. However, the presence of dense vegetation in the canyon bottom, the number of major tributary canyons or draws radiating away from the main canyon at the core of the WSA, and the topographic and vegetative similarity of surrounding mountainous terrain would minimize the corridor effect.

Any visitor groups that would concentrate within the main canyon of Squaw Creek would be well screened by dense juniper vegetation.

There are five major canyons (including the main canyon) or draws radiating out from a 1-mile long section of Squaw Creek at the core of the WSA. Because of these similar terrain and vegetation characteristics, the tributary canyons have the potential to distribute or disperse recreational use throughout the surrounding ridgeline areas of the WSA. A large tributary system entering the lower portions of the main canyon would also help disperse use to the large ridgeline area in the western half of the WSA.

The ridgeline areas with their numerous, similar, small ridges would also not tend to concentrate users in any one area. Furthermore, the highly dissected terrain and dense juniper of the ridgeline areas provide excellent screening among visitors, as well as external influences, even at very close distances.

Despite the relatively short length of main canyon in the WSA, the excellent dispersion potential of tributary canyons (and draws) combined with the overall size and excellent topographic and vegetative screening of the WSA provides outstanding opportunities for solitude.

4) OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

Outstanding opportunities for primitive and unconfined recreation within a WSA are dependent upon the size of the WSA in relation to its ability to provide exceptional or unusual natural features and recreational attractions. Exceptional natural features are defined as those topographic and vegetative features which (1) provide exceptional scenery, (2) create a diversity of landforms, and/or (3) enable a visitor to achieve reasonable mobility within the WSA (nonconfinement). Such natural features would result in a strong recreational attraction to a WSA for one or more types of activities. A WSA is considered to have outstanding opportunities for primitive and unconfined recreation if the overall size of the WSA plus one or more of the factors contributing to exceptional natural features will give a visitor a sense of nonconfinement within an esthetically pleasing area. In WSAs where there are strong corridor effects, the corridor must be long enough to negate the sense of confinement. In addition, the corridor must be exceptionally scenic to make travel within the corridor enjoyable.

The intensive inventory determined that the WSA offers exceptionally scenic natural features and a diversity of landforms which allow for reasonable mobility throughout much of the WSA. These natural features provide recreational attractions to people interested in hiking, camping, backpacking, horseback riding, hunting, wildlife observation and outdoor photography.

As stated in the solitude narrative, the WSA consists of a mountainous area cut by a 400-foot deep canyon.

The canyon of Squaw Creek is divided into two parts: the lower two miles of the canyon which are characterized by high, sheer walls or escarpments, and the upper three miles of the canyon (and over three miles of tributary canyon) which are characterized by steep slopes and rocky crags intermixed with juniper. The canyon, particularly the lower portion, is exceptionally scenic.

The mountainous areas lack the diversity of the canyon. Terrain features and vegetation patterns are similar throughout. The similarity of the mountainous areas, however, is frequently broken by developing canyon areas in the southern half of the WSA which gives a visitor a variety of landforms to cross in short distances.

The presence of a number of major side drainages combined with rugged yet passable terrain allows a visitor to have reasonable mobility to all portions of the WSA.

Because of its size, a diversity of landform, the presence of exceptionally scenic natural features, and the ability of terrain features to allow reasonable mobility throughout the WSA, the WSA has outstanding opportunities for primitive and unconfined recreation.

5) SUPPLEMENTAL VALUES

The WSA has supplemental values, including:

a) Wildlife values

b) Geologic values

c) Scenic values

d) It may have archaeological values

6) SUMMARY

a) Size and Configuration - The WSA contains 10,780 acres of public land. It is of sufficient size and configuration to make practical its preservation and use in an unimpaired condition.

b) Naturalness - The WSA appears to have been affected primarily by the forces of nature with the imprints of man substantially unnoticeabale. The imprints are Congressionally acceptable forms of range improvements which are so limited in number and so widely scattered that visitor encounters would be infrequent and brief.

c) Opportunities for Solitude - The WSA has outstanding opportunities for solitude because of the excellent dispersion potential of the terrain and excellent topographic and vegetative screening.

d) Opportunities for Primitive and Unconfined Recreation - The WSA has outstanding opportunities for primitive and unconfined recreation because of exceptionally scenic natural features, a diversity in landforms, and the ability of terrain features to allow reasonable mobility throughout the WSA.

e) Supplemental Values - The WSA has wildlife, geologic and scenic values.

APPENDIX 1

WILDERNESS STUDY: 16-45
OWYHEE RESOURCE AREA
INTENSIVE INVENTORY

WILDERNESS RESOURCE CHARACTERISTICS

1) SIZE AND CONFIGURATION

The Middle Fork Owyhee River WSA, 16-45, contains 14,180 acres of public land (previously measured at 13,336 acres). It is 7.5 miles long and 1 to 4 miles wide in an irregular configuration.

There are two cherry stem roads penetrating into the WSA for distances of .75 miles or less; the total miles of cherry stem roads is 1 mile. A cherry stem road extends from the northern boundary road .75 miles toward CCC Spring. The other cherry stem road extends .25 miles into the WSA from the western boundary to a stock pond.

There is one state section located in the southwest portion of the WSA. It is not serviced by a defined road, but it is located less than .20 miles inside the southern boundary.

There are no private inholdings within the WSA.

The size of the WSA plus its configuration and the distribution of cherry stem roads makes practical the preservation and use of much of the land within the WSA in an unimpaired condition. Some adjustments in the WSA boundary may be necessary to make any wilderness designation more manageable.

2) NATURALNESS

A WSA must appear to be affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. Most rangeland developments or imprints are permissible within WSAs, but they must be of such a number and distribution throughout a WSA that their presence does not impair the overall apparent primeval or natural character of the WSA.

The intensive wilderness inventory identified the following imprints of man within the WSA:

a) 4.5 miles of ways (vehicle routes which show no sign of construction or maintenance; where vehicle tracks are maintained solely by the passage of vehicles).

b) 2.5 miles of fence line.

c) One water development (developed spring).

d) One old abandoned CCC camp with a developed spring.

Imprints legally outside the WSA are:

a) One water development at the end of the western cherry stem road (reservoir) and along the northern boundary road (developed spring).

The location, number and relative distribution of these imprints of man combined with topographic and vegetative screening makes the imprints substantially unnoticeable in the WSA as a whole. Few of the imprints are located within the major corridors of travel. Visual contact with most imprints are extremely localized because of vegetative screening or a combination of vegetative and topographic screening. A primitive recreationist's visual encounter with imprints would be infrequent and brief.

3) OPPORTUNITIES FOR SOLITUDE

A WSA is considered to have outstanding opportunities for solitude if it has (1) a large enough size and suitable configuration so topographic relief and vegetative cover can provide plentiful screening among visitor groups and from external influences, and (2) a topographic layout combined with suitable configuration which would tend to disperse visitor groups throughout the WSA. If topographic relief tends to concentrate visitors into small or narrow corridors within the WSA, the corridors must be sufficiently long enough and provide plentiful topographic and/or vegetative screening so as to lessen the impact of the corridor effect.

The Middle Fork Owyee River WSA lies on the southwest slope of Juniper Mountain. The mountain is sharply dissected by the V-shaped canyons of the Middle Fork Owyhee River and its numerous small tributary canyons and draws. As the river flows westward, it evolves into a 200-foot deep sheer to vertical-walled, meandering canyon which cuts through a hilly area and gently rolling plateau area.

Juniper Mountain is covered with dense stands of juniper. As elevation drops to the west, juniper stands become thinner until they become only widely scattered, isolated trees.

The intensive wilderness inventory of the WSA determined that the rugged canyon and hilly to mountainous, juniper covered topography occurring over much of the WSA provides both excellent screening among visitor groups and excellent potential for dispersed recreational use.

It is recognized that the canyons have the potential to concentrate visitors into narrow corridors of use and increase the opportunity for visitor interaction. However, the length of the canyons in the WSA (8 miles total), the canyons' meandering character, the presence of dense riparian vegetation, and the number and length of tributary canyons and draws would greatly minimize any potential corridor effect in the WSA.

There are 15 side canyons or draws of comparable scenic quality (not all exceptional) totaling over 15 miles in length which would attract visitors away from the main canyons. The tributary canyons, because of their number, even distribution and physical similarity, have the potential to disperse recreational use throughout the WSA. Furthermore, because of the relatively easy access from most of the canyon areas to surrounding ridges, hills and plateau areas, and the ease of mobility in these areas, visitor use can be expected to be even more widely dispersed in the WSA.

The thin to dense stands of juniper plus the rugged, highly dissected character of the topography would provide excellent screening among visitor groups that were at close distances to each other, except in the extreme western portion of the WSA. In the western portion, the rolling topography and low sagebrush vegetation provide limited screening.

If any visitor groups would concentrate within the main canyons or tributary canyons (particularly in the western portions of the Middle Fork Owyhee River Canyon) they would be well screened from each other by very dense riparian vegetation and the meandering canyon walls. Visual contact between user groups is generally not possible within the canyons at distances of several hundred feet or much less.

Because of the size and configuration of the WSA, the presence of plentiful topographic and vegetative screening over much of the WSA, and the ability of topography to disperse visitor use, the WSA has outstanding opportunities for solitude.

4) OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

Outstanding opportunities for primitive and unconfined recreation within a WSA are dependent upon the size of the WSA in relation to its ability to provide exceptional or unusual natural features and recreational attractions. Exceptional natural features are defined as those topographic and vegetative features which (1) provide exceptional scenery, (2) create a diversity of landforms, and/or (3) enable a visitor to achieve reasonable mobility within the WSA (nonconfinement). Such natural features would result in a strong recreational attraction to a WSA for one or more types of activities. A WSA is considered to have outstanding opportunities for primitive and unconfined recreation if the overall size of the WSA plus one or more of the factors contributing to exceptional natural features, will give a visitor a sense of nonconfinement within an esthetically pleasing area. In WSAs where there are strong corridor effects, the corridor must be long enough to negate the sense of confinement. In addition, the corridor must be exceptionally scenic to make travel within the corridor enjoyable.

The intensive inventory determined that the WSA offers exceptionally scenic natural features and a diversity of landforms which would allow for reasonable mobility throughout the WSA. These natural features provide a recreational attraction to people interested in backpacking, day hiking, sightseeing, nature photography, horseback riding, hunting and fishing.

As stated in the solitude narrative, the WSA consists of a gradual increase in juniper vegetation and elevation from west to east which creates a diversity of topographic and vegetative landforms (from flat sagebrush plateaus to rolling or hilly sagebrush/juniper areas, to vertical-walled, meandering canyons, to rugged V-shaped canyons, to dense juniper covered mountainous terrain).

The westernmost portion of the Middle Fork Owyhee River Canyon is typified by an exceptionally scenic, narrow, sheer to vertical-walled meandering canyon with numerous beautiful reddish-brown rock spires, juniper trees, and a dense, rich green riparian area.

The hilly and mountainous areas of the WSA (northern and eastern portion), particularly within or around the numerous draws or small side canyons, contains hundreds of individual rock pillars or outcrops intermingled with stands of juniper. The rock formations and juniper join together to form a beautiful mosaic of rock and vegetation. The beauty of these areas is intensified in the early spring when snow patches and moving water in the numerous shallow draws add to the spectrum of colors.

Because of the general lack of understory vegetation in the juniper stands, the numerous shallow to moderately deep draws, and the moderate elevation changes over much of the WSA, mobility throughout the entire WSA is relatively easy. No sense of confinement is felt because of topographic or vegetative barriers.

The ease of mobility within the main canyon bottoms is somewhat hampered by the presence of dense riparian vegetation. Travel along the canyon bottoms generally require considerable time wading through water, particularly during high water in the spring. However, because of the shallow nature of many portions of the main canyons or the readily passable canyon slopes in most areas, and the numerous side draws or small canyons, visitors can easily leave the main canyons to find more favorable hiking conditions.

Because of its size, the diversity of natural features, and the presence of exceptionally scenic natural features in an area where topography and vegetation generally do not restrict the reasonable mobility of a visitor, the WSA has outstanding opportunities for primitive and unconfined recreation.

5) SUPPLEMENTAL VALUES

The Middle Fork Owyhee River WSA contains supplemental values, including:

a) Scenic values

b) Wildlife values

c) Geological values

d) It may have ecological/scientific values

e) It may have archaeological values

6) SUMMARY

a) Size and Configuration - The WSA is 14,180 acres in size. The WSA is of sufficient size and configuration to make practical the preservation and use of most of the land within the WSA in an unimpaired condition.

b) Naturalness - The WSA appears to have been affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. The imprints are generally Congressionally acceptable forms of range improvements which are limited in number and so widely scattered that visitor encounters would be infrequent and brief.

c) Opportunities for Solitude - The WSA has outstanding opportunities for solitude because of its size, its configuration, the presence of plentiful topographic and vegetative screening, and the ability of topography to disperse visitor use throughout the WSA.

d) Opportunities for Primitive and Unconfined Recreation - The WSA has outstanding opportunities for primitive and unconfined recreation because of its size, the diversity of natural features, the presence of exceptionally scenic natural features, and the ability of visitors to travel through the area without being confined by natural features.

e) Supplemental Values - The WSA has scenic, wildlife and geological values.

APPENDIX 1

WILDERNESS STUDY: 16-47
OWYHEE RESOURCE AREA
INTENSIVE INVENTORY

WILDERNESS RESOURCE CHARACTERISTICS

1) SIZE AND CONFIGURATION

The West Fork Red Canyon WSA, 16-47, contains 12,970 acres of public land (previously measured at 14,710 acres). It is 6 miles long and 2 to 4.75 miles wide in a somewhat triangular configuration.

There are no cherry stem roads penetrating into the WSA.

There are no state or private inholdings within the WSA.

The size of the WSA plus its configuration and the lack of cherry stem roads makes practical the preservation and use of much of the land within the WSA in an unimpaired condition. Some adjustments in the WSA boundary may be necessary to make any wilderness designation more manageable.

2) NATURALNESS

A WSA must appear to be affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. Most rangeland developments or imprints are permissible within WSAs, but they must be of such a number and distribution throughout a WSA that their presence does not impair the overall apparent primeval or natural character of the WSA.

a) Four miles of ways (vehicle routes which show no sign of construction or maintenance; where vehicle tracks are maintained solely by the passage of vehicles).

b) 3.25 miles of fence line (some bladed).

The location, number and relative distribution of these imprints of man combined with topographic and vegetative screening makes the imprints substantially unnoticeable in the WSA as a whole. Most of the imprints are located within or near the major corridors of travel. However, visual contact with these imprints are localized because of vegetative screening or a combination of vegetative and topographic screening. A primitive recreationist's visual encounter with imprints would generally be infrequent and brief. Because of the strong localized impact of imprints in the south-central travel corridor of the WSA, rehabilitation of imprints should be considered carefully before making any wilderness recommendation.

3) OPPORTUNITIES FOR SOLITUDE

A WSA is considered to have outstanding opportunities for solitude if it has (1) a large enough size and suitable configuration so topographic relief and vegetative cover can provide plentiful screening among visitor groups and from external influences, and (2) a topographic layout combined with suitable configuration which would tend to disperse visitor groups throughout the WSA. If topographic relief tends to concentrate visitors into small or narrow corridors within the WSA, the corridors must be sufficiently long enough and provide plentiful topographic and/or vegetative screening so as to lessen the impact of the corridor effect.

The WSA lies on the south slopes of Juniper Mountain. From the south-central portion of the WSA, the landscape evolves from a gently rolling sagebrush basin with scattered juniper to rugged mountainous terrain and canyons covered with dense to moderately dense stands of juniper.

The mountainous areas are cut by six major north-south, V-shaped canyons, the largest being the deep canyons of the West Fork and East Fork Red Canyon Creek. Lying between the East and West Fork is a large flattened ridge or tableland cut in half by a large unnamed tributary canyon. The canyons sharply dissect the entire eastern half of the WSA.

Unlike the eastern canyons, the three smaller western canyons do not dissect the south-central rolling sagebrush basin, but rather break down or disappear after leaving the southern fringe of the western and northern mountain areas.

The intensive wilderness inventory of the WSA determined that the rugged canyon and mountainous topography combined with thin to dense stands of juniper over much of the WSA provides both excellent screening among visitor groups and excellent potential for dispersed recreational use.

It is recognized that the larger, more scenic canyons in the eastern half of the WSA have the potential to concentrate visitors into narrow corridors of use and increase the potential for visitor interaction. However, the length of canyons available (10+ miles), the canyons' distribution in the eastern half of the WSA, the canyons' meandering character, the presence of heavy riparian vegetation, and the number and distribution of smaller tributary canyons or draws would greatly minimize any potential corridor effect.

The three main canyons and their tributary canyons radiate out to encompass the entire eastern half of the WSA. From many points along the canyon, visitors can climb and disperse onto the flattened ridge areas which are covered with thin to dense stands of juniper. These juniper stands would provide excellent screening among visitor groups who are at close distances to each other.

Any visitor groups which would concentrate within the eastern canyons or draws would be well screened from each other by the meandering, steep canyon walls and/or dense riparian vegetation. The 10 miles of canyons available for hiking provide numerous isolated campsites which would allow visitors to be out of sight and sound of other visitor groups. Furthermore, the length of the canyons would provide more travel time and distance for visitor groups to adjust their travel rates and campsite locations to avoid interaction while hiking in the canyons. Visual contact between user groups is generally not possible within the canyons at distances of several hundred feet or much less.

Because of the topographic and vegetative similarity of the three northwest canyons and mountainous areas, as well as the rolling southwest sagebrush basin areas, visitor use is not expected to concentrate in any one area of the western half of the WSA. With random dispersed use and excellent vegetative screening provided by juniper, visual encounters between user groups would be extremely limited.

Because of the size and good configuration of the WSA, the presence of plentiful topographic and vegetative screening over much of the WSA, and the ability of topography to disperse visitor use, the WSA has outstanding opportunities for solitude.

4) OPPORTUNITIES FOR PRIMITIVE AND UNCONFINED RECREATION

Outstanding opportunities for primitive and unconfined recreation within a WSA are dependept upon the size of the WSA in relation to its ability to provide exceptional or unusual natural features and recreational attractions. Exceptional natural features are defined as those topographic and vegetative features which (1) provide exceptional scenery, (2) create a diversity of landforms, and/or (3) enable a visitor to achieve reasonable mobility within the WSA (nonconfinement). Such natural features would result in a strong recreational attraction to a WSA for one or more types of activities. A WSA is considered to have outstanding opportunities for primitive and unconfined recreation if the overall size of the WSA plus one or more of the factors contributing to exceptional natural features will give a visitor a sense of nonconfinement within an esthetically pleasing area. In WSAs where there are strong corridor effects, the corridor must be long enough to negate the sense of confinement. In addition, the corridor must be exceptionally scenic to make travel within the corridor enjoyable.

The intensive wilderness inventory determined that the WSA offers a diversity of topographic and vegetative landforms which allow for reasonable mobility throughout the WSA. These natural features provide a recreational attraction to people interested in backpacking, day hiking, sightseeing, nature photography, wildlife viewing, fishing, hunting and horseback riding.

As stated in the solitude narrative, the landscape of the WSA evolves from a rolling sagebrush-scattered juniper basin in the south-central portion to dense, juniper covered mountainous terrain cut by several deep V-shaped canyons and other smaller canyons.

Because of the similarity in form, color and contrast within each landform, none of the landforms are considered exceptionally scenic natural features. However, the diversity between landforms that visitors will encounter while traveling in the WSA does create variety. This variety contributes to scenic quality throughout the WSA as a whole and would attract recreational use.

Because of the general lack of understory vegetation in the mountainous juniper areas and the presence of numerous readily passable canyons, draws, ridgelines and a rolling basin, reasonable mobility can be achieved throughout the entire WSA. There are no topographic or vegetative barriers which prevent travel between any portion of the WSA; therefore, there is no sense of confinement created in the WSA.

Because of its size, the diversity of landform, and the ability of terrain features to allow reasonable mobility throughout the WSA, the WSA has outstanding opportunities for primitive and unconfined recreation.

5) SUPPLEMENTAL VALUES

The WSA has supplemental values, including:

a) Wildlife values

b) It may have ecological/scientific values

c) It may have archaeological values

6) SUMMARY

a) Size and Configuration - The WSA contains 12,970 acres of public land. It is of sufficient size and configuration to make practical its preservation and use in an unimpaired condition.

b) Naturalness - The WSA appears to have been affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. The imprints are Congressionally acceptable forms of range improvements which are limited in number and so widely scattered that visitor encounters would generally be infrequent and brief. However, potential rehabilitation of strong localized impacts will have to be addressed in the study phase of the wilderness review process.

c) Opportunities for Solitude - The WSA has outstanding opportunities for solitude because of its size, the presence of plentiful topographic and vegetative screening, and the ability of terrain to disperse visitor use throughout the WSA.

d) Opportunities for Primitive and Unconfined Recreation - The WSA has outstanding opportunities for primitive and unconfined recreation because of its size, the diversity of landform, and the ability of terrain features to allow reasonable mobility throughout the WSA.

e) Supplemental Values - The WSA has supplemental wildlife values.

APPENDIX 2, TABLE 1

Potential AUM Increases Due to Brush Control (BC) and Seeding within WSAs

WSA	Allotment	Acres	Livestock Compet. AUM Allocation	AUMs Avai		Increase in Comp. AUM Alloc.
				BC Only Acres	Seed & BC Acres	
16-40	Total	49,470	2,979	4,905	4,200	1,281
	0459	170	5	--	--	0
	0501	13,060	535	1,453	1,583	446
	0520	4,020	459	784	369	168
	0539	1,070	227	--	--	0
	0546	6,695	430	18	118	17
	0548	13,165	928	1,172	866	255
	0599	11,290	395	1,478	1,264	395
16-41	0539	6,210	235	--	418	90
16-42	0539	10,780	529	562	3,810	750
16-45	Total	14,180	758	22	4,291	765
	0539	7,700	628	--	2,386	332
	0540	6,480	130	22	1,905	433
16-47	Total	12,970	581	138	3,581	695
	0539	5,490	352	79	1,345	209
	0540	7,480	229	59	2,236	486
Total potential maximum increase in AUMs due only to brush control and seeding (does not include increase due to grazing management). Percentage of each WSA which is treatable: 16-40, 19%; 16-41, 7%; 16-42, 41%; 16-45, 30%; 16-47A, 28%.						3,581 (70% Increase)

*The AUMs are based on 50% of the grass production and livestock dietary preference. For details, see Forage Allocation Methodology in Appendix C of the Draft Owyhee Grazing EIS.

APPENDIX 3, TABLE 1
20-Year Livestock AUM Projections by Allotment

Allot-ments	Active Pref (AUMs)	Initial Livestk Compet. AUM Alloc	Change in Livestock Competitive AUM Allocation for Each Allotment per Wilderness Alternative											
			No Action Alternative				All Wilderness Alternative				Partial Wilderness Alternative #1			
			Grazing Mgmt	Brush Control and/or Brush Control and Seeding	Total AUMs	% Change from Active Pref	Grazing Mgmt	Brush Control and/or Brush Control and Seeding	Total AUMs	% Change from Active Pref.	Grazing Mgmt	Brush Control and/or Brush Control and Seeding	Total AUMs	% Change from Active Pref.
0459	204	204	10	0	214	<+ 1	10	0	214	<+ 1	10	0	214	<+ 1
0501	1,788	723	51	989	1,763	- 1	51	543	1,317	-26	51	543	1,317	-26
0520	1,203	1,190	48	466	1,704	+42	48	298	1,536	+28	48	298	1,536	+28
0539	7,338	5,030	1,962	4,287	11,279	+54	1,962	2,906	9,898	+35	1,962	4,287	11,279	+54
0540	3,726	2,289	1,099	1,081	4,469	+20	1,099	162	3,550	5	1,099	1,081	4,469	+20
0546	1,020	756	454	431	1,641	+61	454	414	1,624	+59	454	414	1,624	+59
0548	2,935	3,212	964	890	5,066	+73	964	635	4,811	+64	964	667	4,843	+64
0599	1,754	601	421	738	1,760	<+ 1	421	343	1,365	-22	421	417	1,439	-22
TOTALS	19,968	14,005	5,009	8,882	27,896	+40	5,009	5,301	24,315	+22	5,009	7,707	26,721	+34

Table assumes that AUM increase due to grazing management will occur if areas are designated wilderness.
Partial Wilderness Alternative #1 based only on manageability adjustments.

APPENDIX 3, TABLE 1
20-Year Livestock AUM Projections by Allotment

Allotments	Active Pref (AUMs)	Livestk Compet. AUM Alloc	Change in Livestock Competitive AUM Allocation for Each Allotment per Wilderness Alternative							
			Partial Wilderness Alternative #2				Partial Wilderness Alternative #3			
			Grazing Mgmt	Brush Control and/or Brush Control and Seeding	Total AUMs	% Change from Active Pref.	Grazing Mgmt	Brush Control and/or Brush Control and Seeding	Total AUMs	% Change from Active Pref.
0459	204	204	10	0	214	<+ 1	10	0	214	<+1
0501	1,788	723	51	570	1,344	-25	51	570	1,344	-25
0520	1,203	1,190	48	298	1,536	+28	48	298	1,536	+28
0539	7,388	5,030	1,962	4,287	11,279	+54	1,962	4,197	11,189	+51
0540	3,726	2,289	1,099	1,081	4,469	+20	1,099	1,081	4,469	+20
0546	1,020	756	454	414	1,624	+59	454	414	1,624	+59
0548	2,935	3,212	964	667	4,843	+65	964	667	4,843	+65
0599	1,754	601	421	473	1,495	-15	421	473	1,495	-15
TOTALS	19,968	14,005	5,009	7,790	26,804	+34	5,009	7,700	26,714	+34

Partial Wilderness Alternatives #2 and #3 based on manageability and the degree of resource conflict (amount of treatable soils) adjustments.

APPENDIX 3, TABLE 2

Economic Impact of Vegetation Manipulation Curtailment Imposed by Wilderness Designation

Allotments	AUMs Gained by Year 20 1/					Annual Value of AUMs Gained by Year 20 2/				
	No Action Alternative	All Wilderness Alternative	Partial Wilderness Alternative No. 1	Partial Wilderness Alternative No. 2	Partial Wilderness Alternative No. 3	No Action Alternative	All Wilderness Alternative	Partial Wilderness Alternative No. 1	Partial Wilderness Alternative No. 2	Partial Wilderness Alternative No. 3
0459	0	0	0	0	0	---	---	---	---	---
0501	989	543	543	570	570	$ 14,500	$ 7,900	$ 7,900	$ 8,300	$ 8,300
0520	466	298	298	298	298	6,800	4,400	4,400	4,400	4,400
0539	4,287	2,906	4,287	4,287	4,197	62,700	42,500	62,700	62,700	61,400
0540	1,081	162	1,081	1,081	1,081	15,800	2,400	15,800	15,800	15,800
0546	431	414	414	414	414	6,300	6,100	6,100	6,100	6,100
0548	890	635	667	667	667	13,000	9,300	9,800	9,800	9,800
0599	738	343	417	473	473	10,800	5,000	6,100	6,900	6,900
TOTALS	8,882	5,301	7,707	7,790	7,700	$129,900	$ 77,600	$112,800	$114,000	$112,700

Note: This table does not reflect the total economic values discussed in the economic section of each wilderness alternative, which include 5,009 AUMs ($73,200) gained through intensive grazing management.

1/ AUMs Gained - AUMs gained through brush control and/or brush control and seeding.

2/ Value of AUMs Gained - Based on income/AUM calculated by linear programming analysis done for the Owyhee Grazing EIS.

APPENDIX 3, TABLE 3

20-Year Livestock AUM Projections by WSA

WSA Number	Active Preference (AUMs)	Livestock Competitive AUM Allocation	Change in Livestock Competitive AUM Allocation for each WSA per Wilderness Alter.							
			No Action Alternative				All Wilderness			
			Grazing Management	Brush Control and/or Brush Control and Seeding	Total AUMs	% Change from Active Pref.	Grazing Management	Brush Control and/or Brush Control and Seeding	Total AUMs	% Change from Active Pref.
16-40	4,759	2,979	975	1,281	5,235	+10	975	0	3,954	-17
16-41	440	235	117	90	442	<+1	117	0	352	-20
16-42	808	529	215	750	1,494	+85	215	0	744	- 8
16-45	1,109	758	309	765	1,832	+65	309	0	1,067	- 4
16-47	1,073	581	303	695	1,579	+47	303	0	884	- 8
WSA Totals	8,189	5,082	1,919	3,581	10,582	+29	1,919	0	7,001	- 6
Non-Wilderness or Non-WSA Lands of Affected Allotments	11,779	8,923	3,090	5,301	17,314	+47	3,090	5,301	17,314	+47
Total for All Affected Allotments	19,968	14,005	5,009	8,882	27,896	+40	5,009	5,301	24,315	+22

APPENDIX 3, TABLE 3 (Cont.)
20-Year Livestock AUM Projections by WSA

Adjusted WSA	Change in Livestock Competitive AUM Allocation for Each WSA per Wilderness Alternative																	
	Adjusted*		Partial Alternative #1				Adjusted		Partial Alternative #2				Adjusted		Partial Alternative #3			
	Active Pref (AUMs)	Lvstk. Compet AUM Alloc.	Grazing Mgmt.	Brush Cont. &/or Brush Cont. and Seed.	Total AUMs	% Chg. from Act. Pref	Active Pref (AUMs)	Lvstk. Compet AUM Alloc.	Grazing Mgmt.	Brush Cont. &/or Brush Cont. and Seed.	Total AUMs	% Chg. from Act. Pref	Active Pref (AUMs)	Lvstk. Compet AUM Alloc.	Grazing Mgmt.	Brush Cont. &/or Brush Cont. and Seed.	Total AUMs	% Chg. from Act. Pref
16-40	4,611	2,886	940	0	3,826	- 7	3,993	2,499	818	0	3,317	- 7	3,993	2,499	818	0	3,317	- 7
16-41	---	---	---	---	---	--	---	---	---	---	---	--	432	231	114	0	345	-20
WSA Total	4,611	2,886	940	0	3,826	- 7	3,993	2,499	818	0	3,317	- 7	4,425	2,730	932	0	3,662	- 7
Non-Wilderness or Non-WSA Lands of Affected Allotments	15,357	11,119	4,069	7,707	22,895	+49	15,975	11,506	4,191	7,700	23,397	+46	15,543	11,275	4,077	7,700	23,052	+48
Total for All Affected Lands	19,968	14,005	5,009	7,707	26,721	+34	19,968	14,005	5,009	7,700	26,714	+34	19,968	14,005	5,009	7,700	26,714	+34

* Adjusted for wilderness recommendation boundaries.

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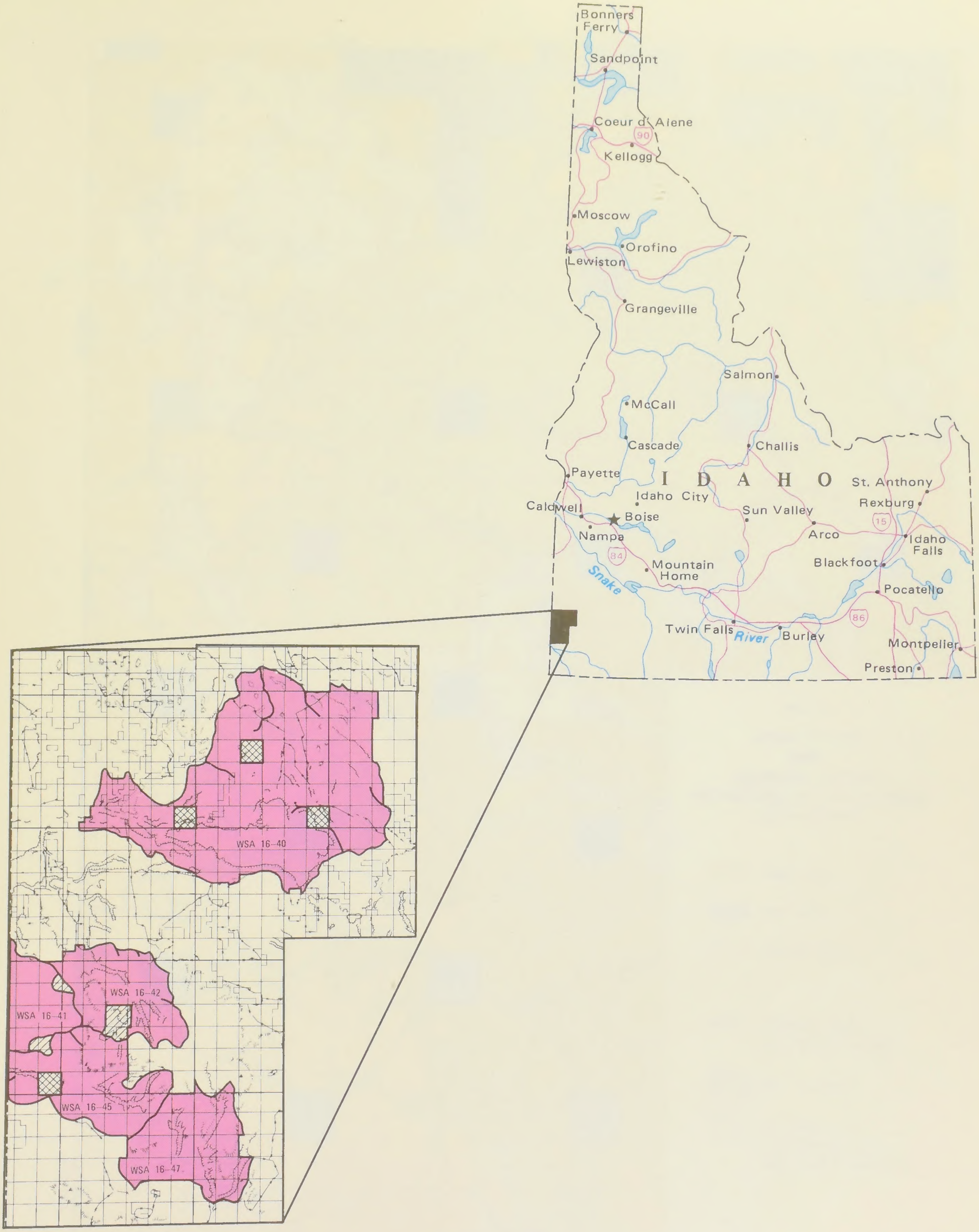
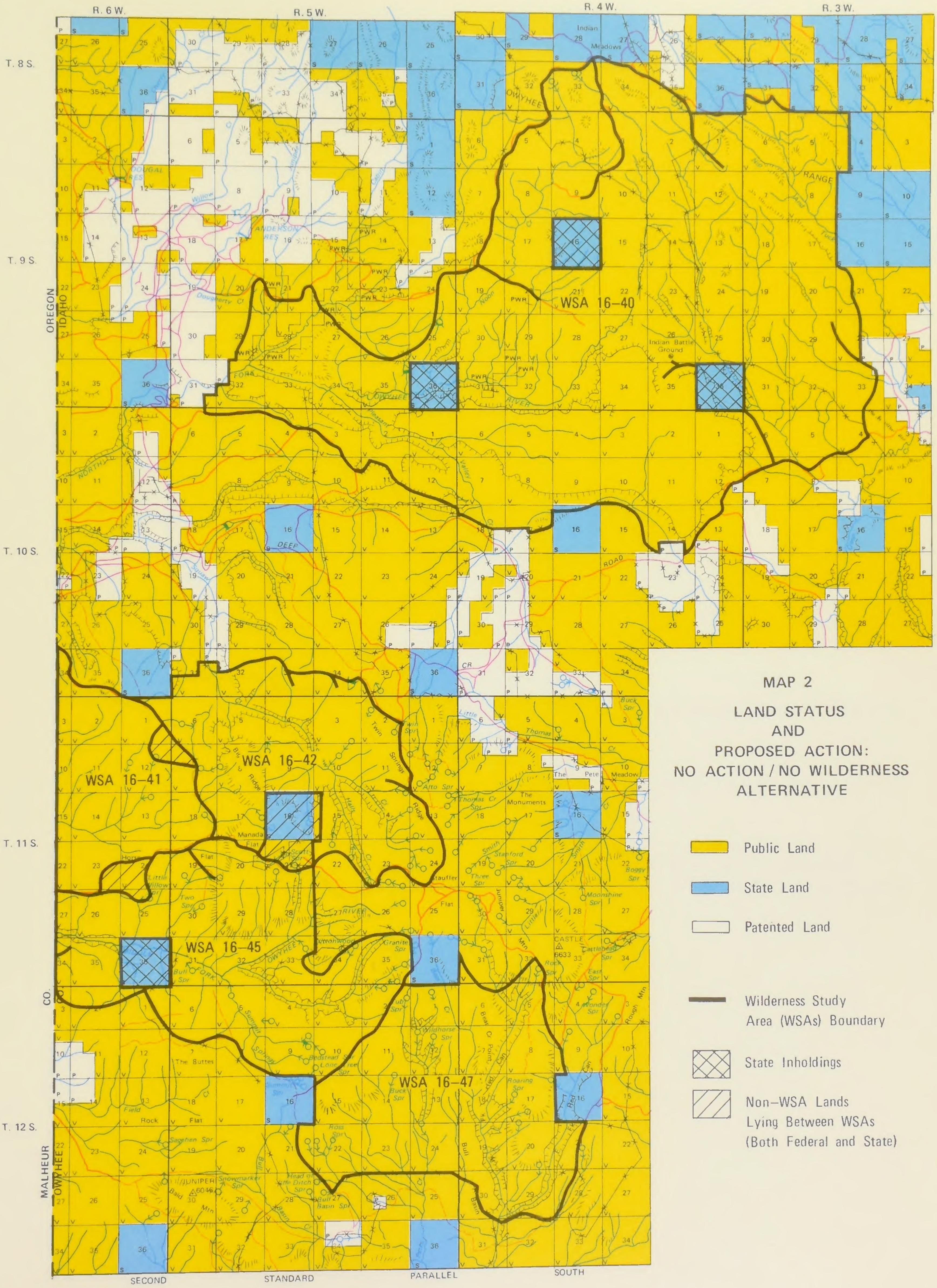


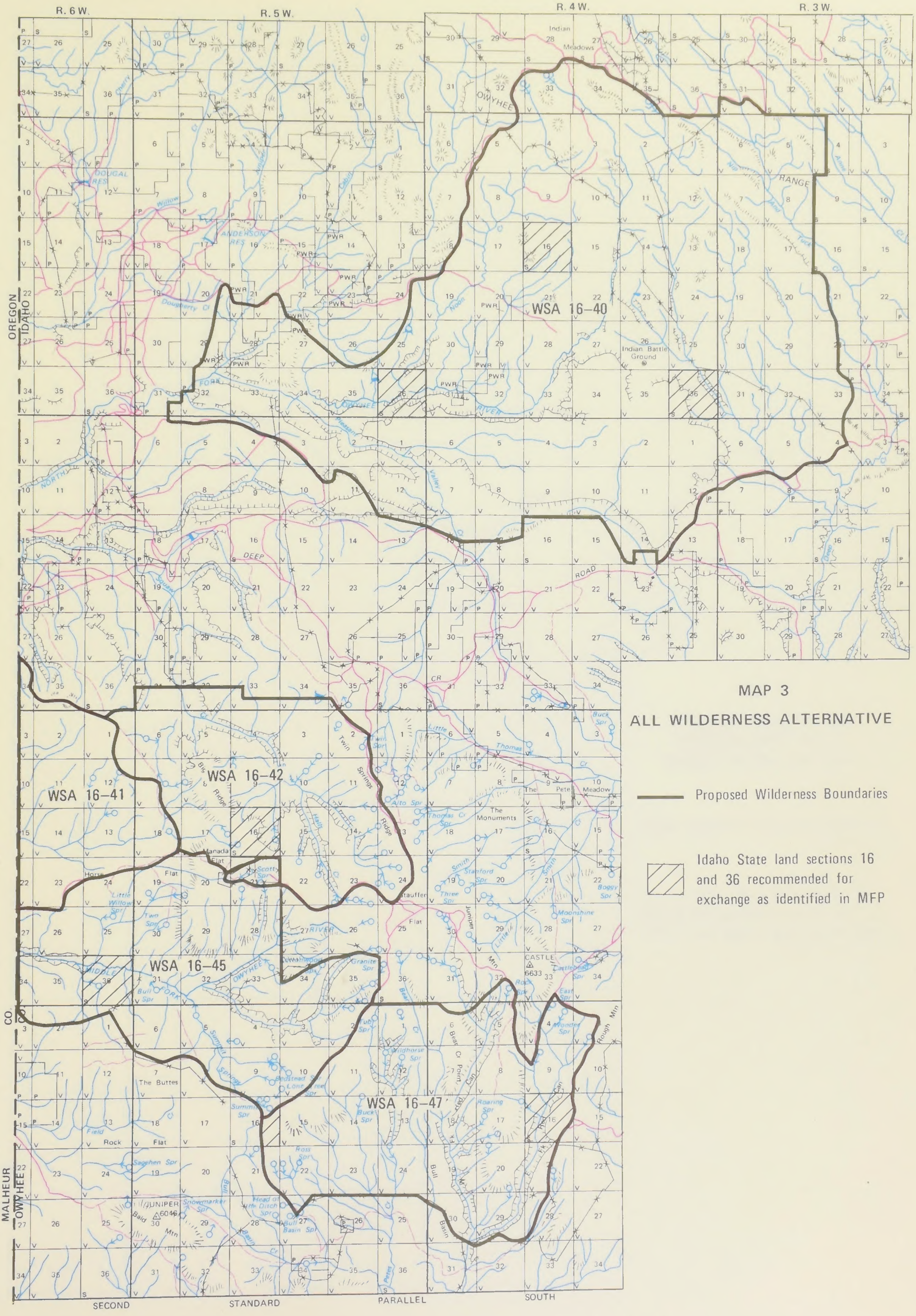
MAP 1

LOCATION MAP

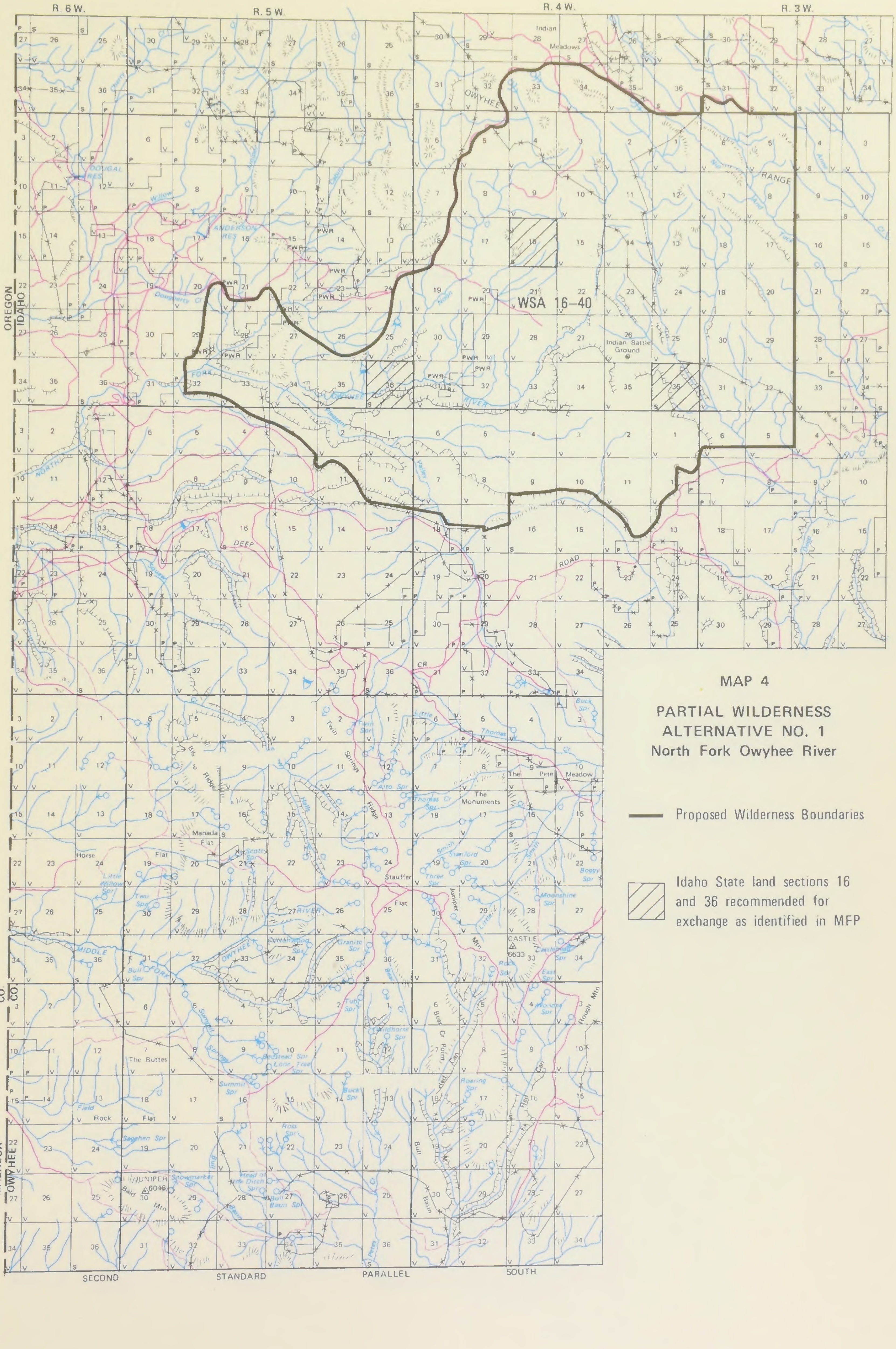


MAP 2

LAND STATUS AND PROPOSED ACTION: NO ACTION / NO WILDERNESS ALTERNATIVE



MAP 3
ALL WILDERNESS ALTERNATIVE



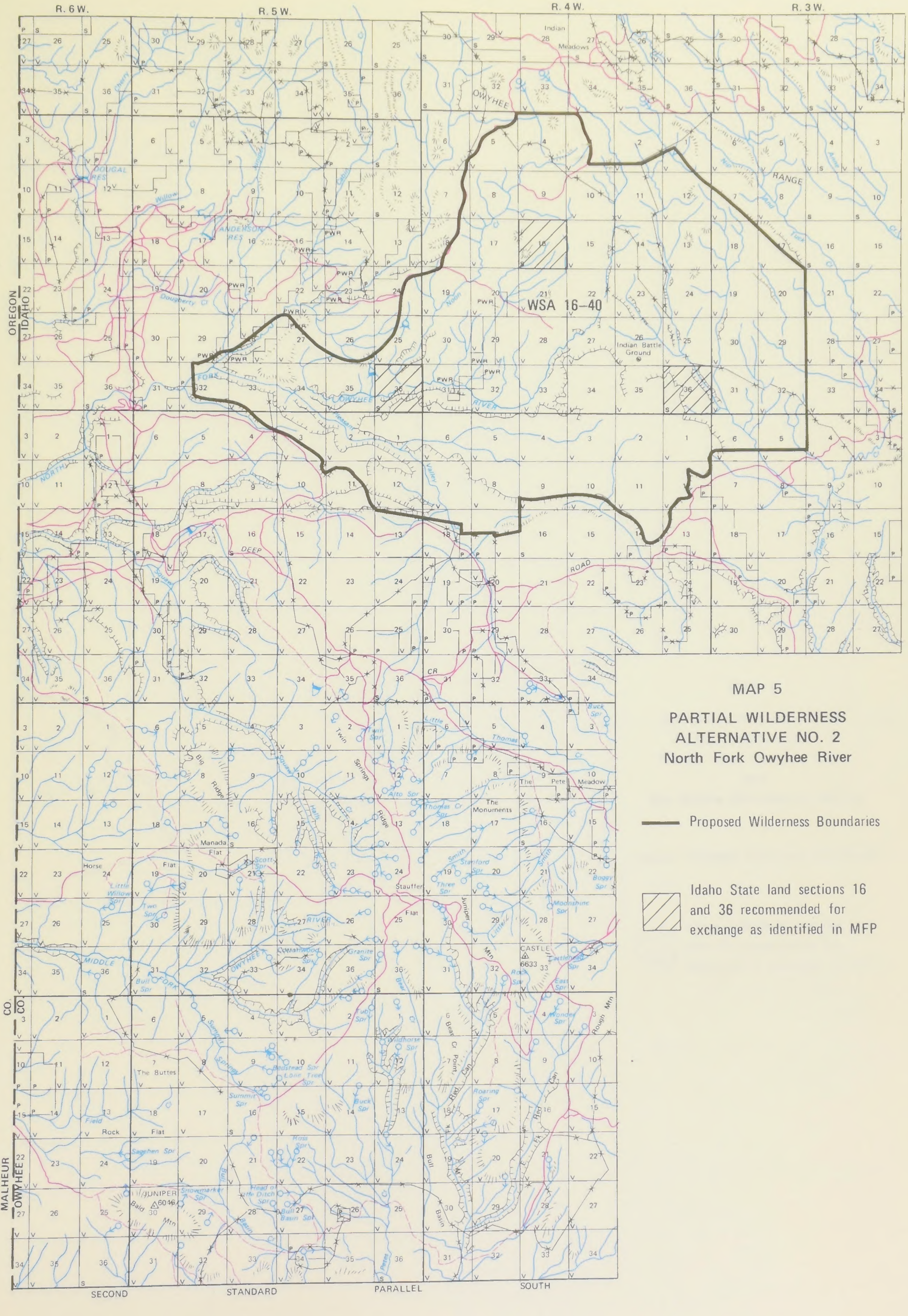
MAP 4

PARTIAL WILDERNESS ALTERNATIVE NO. 1

North Fork Owyhee River

▬ Proposed Wilderness Boundaries

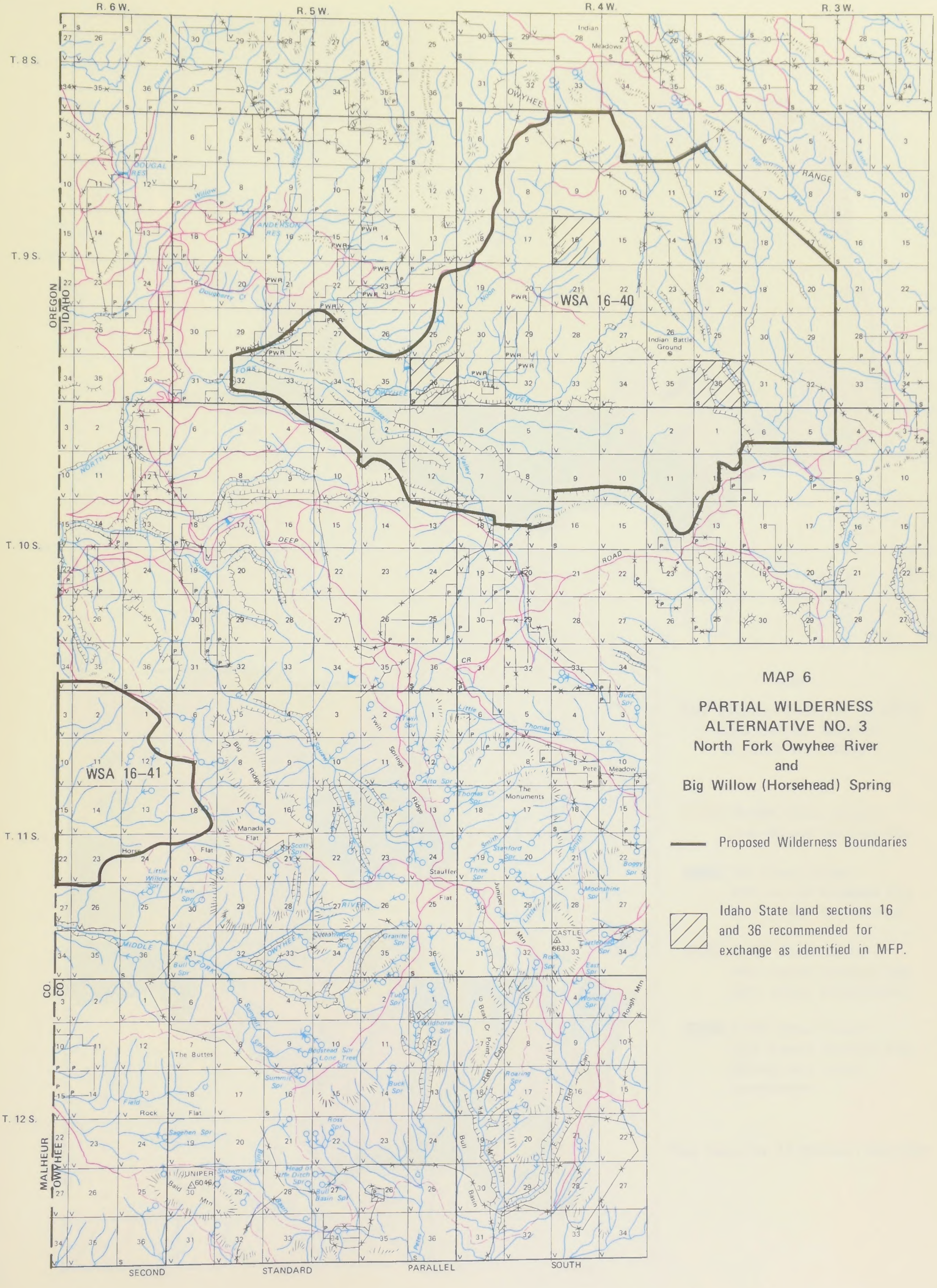
▨ Idaho State land sections 16 and 36 recommended for exchange as identified in MFP



MAP 5

PARTIAL WILDERNESS
ALTERNATIVE NO. 2
North Fork Owyhee River

—	Proposed Wilderness Boundaries
▨	Idaho State land sections 16 and 36 recommended for exchange as identified in MFP



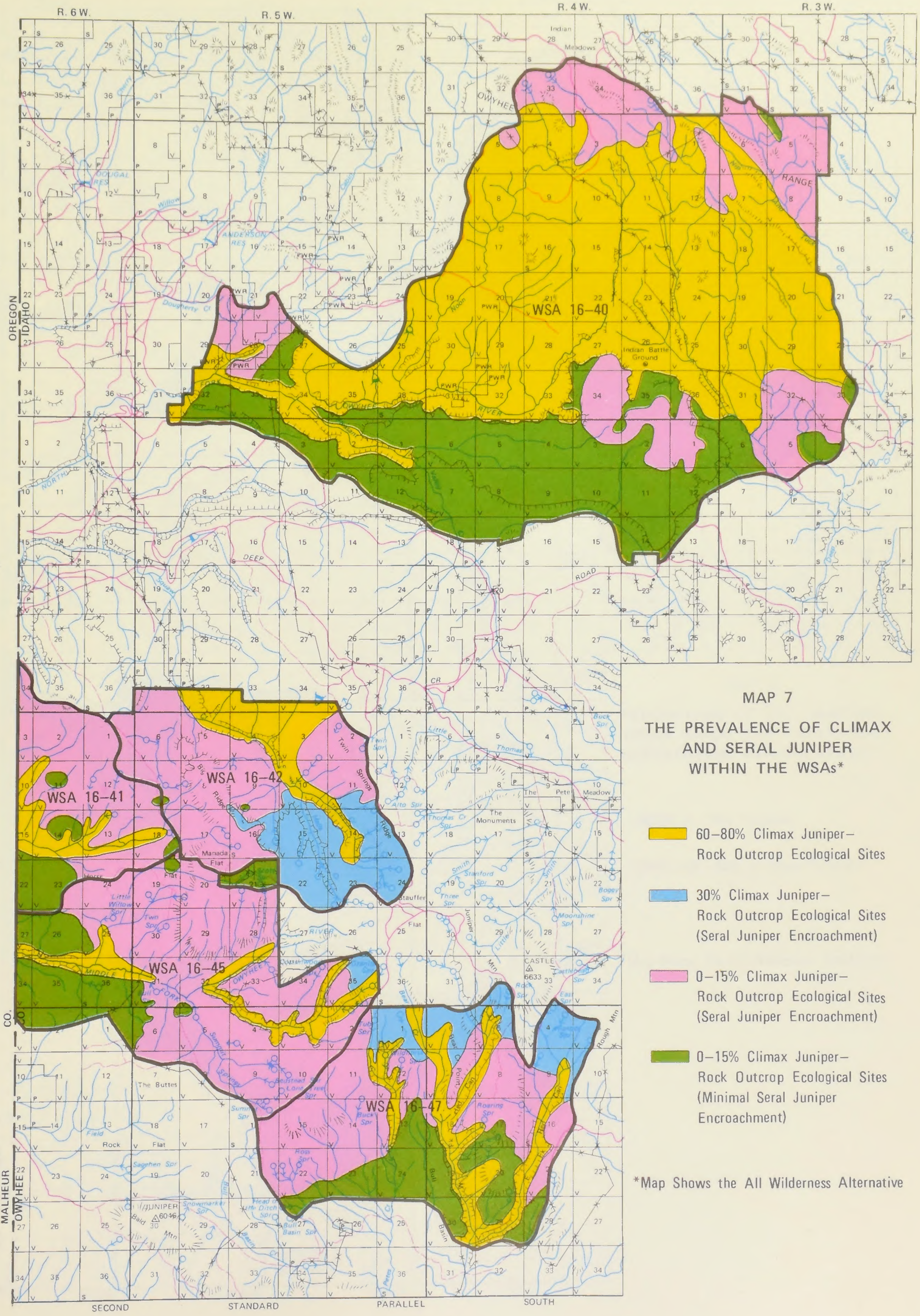
MAP 6

PARTIAL WILDERNESS ALTERNATIVE NO. 3

North Fork Owyhee River and Big Willow (Horsehead) Spring

Proposed Wilderness Boundaries

▨ Idaho State land sections 16 and 36 recommended for exchange as identified in MFP.



MAP 7

THE PREVALENCE OF CLIMAX AND SERAL JUNIPER WITHIN THE WSAs*

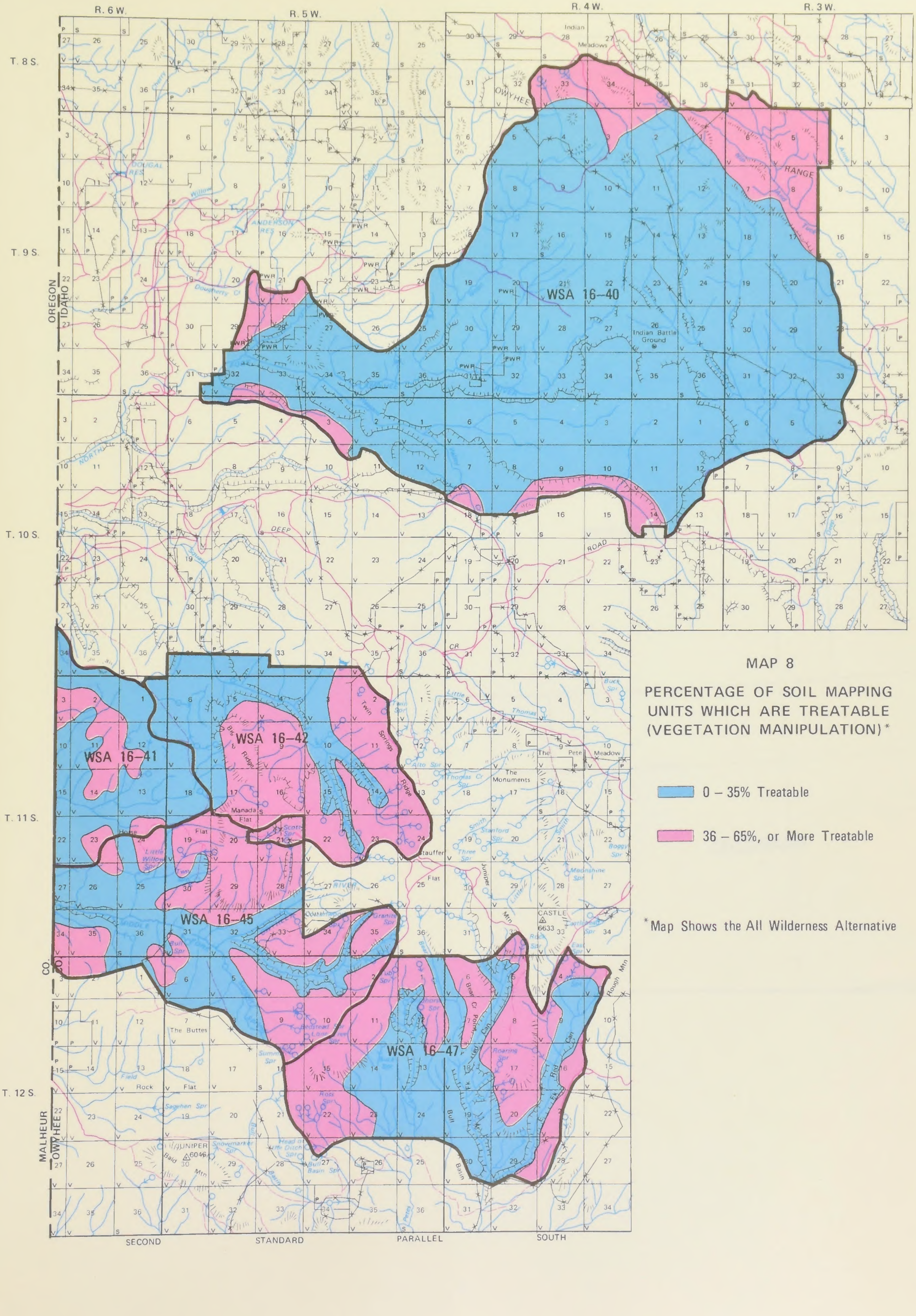
🟨 60–80% Climax Juniper– Rock Outcrop Ecological Sites

🟦 30% Climax Juniper– Rock Outcrop Ecological Sites (Seral Juniper Encroachment)

🟪 0–15% Climax Juniper– Rock Outcrop Ecological Sites (Seral Juniper Encroachment)

🟩 0–15% Climax Juniper– Rock Outcrop Ecological Sites (Minimal Seral Juniper Encroachment)

*Map Shows the All Wilderness Alternative



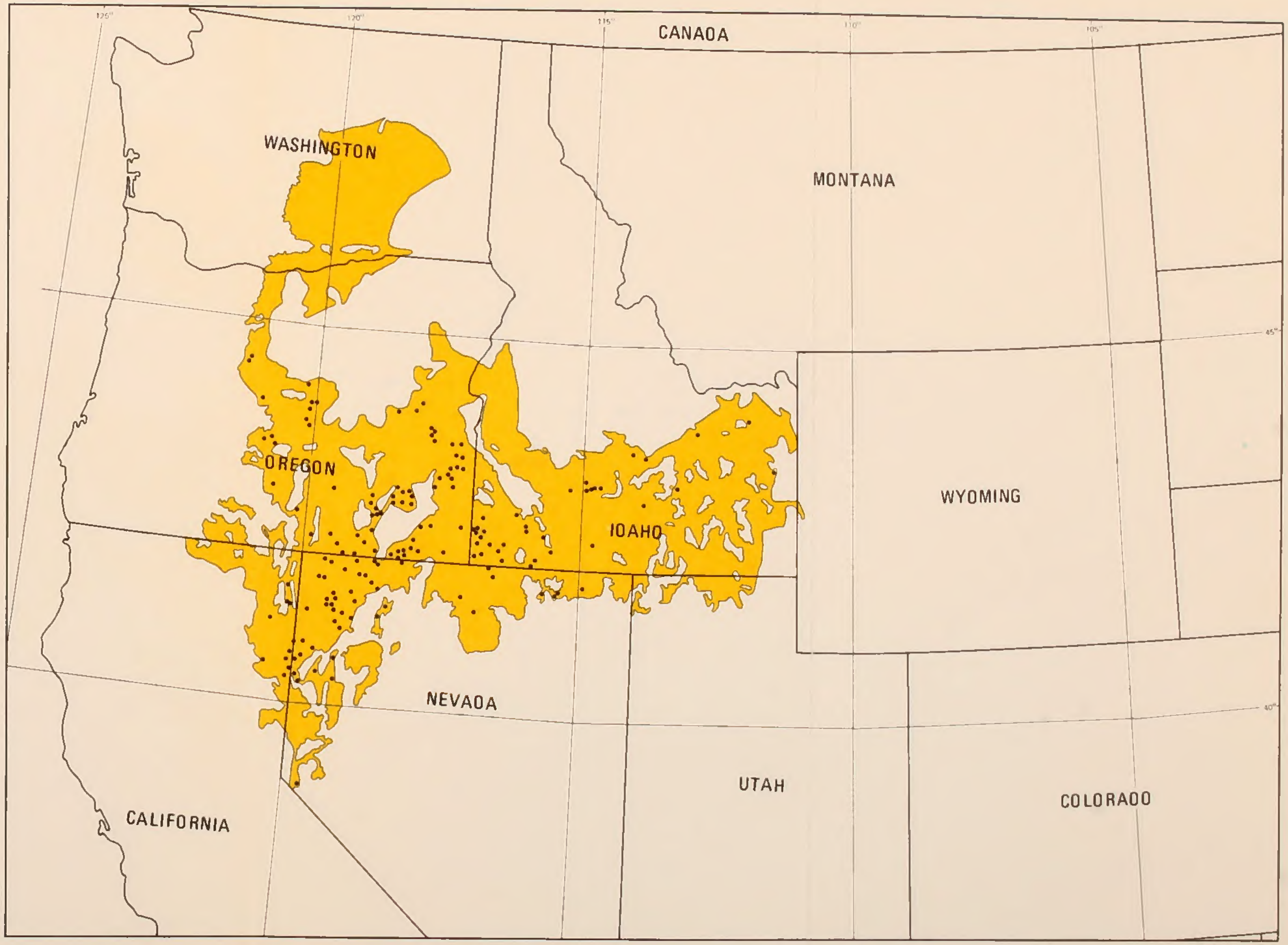
MAP 8

PERCENTAGE OF SOIL MAPPING UNITS WHICH ARE TREATABLE (VEGETATION MANIPULATION)*

🟦 0 – 35% Treatable

🟪 36 – 65%, or More Treatable

*Map Shows the All Wilderness Alternative



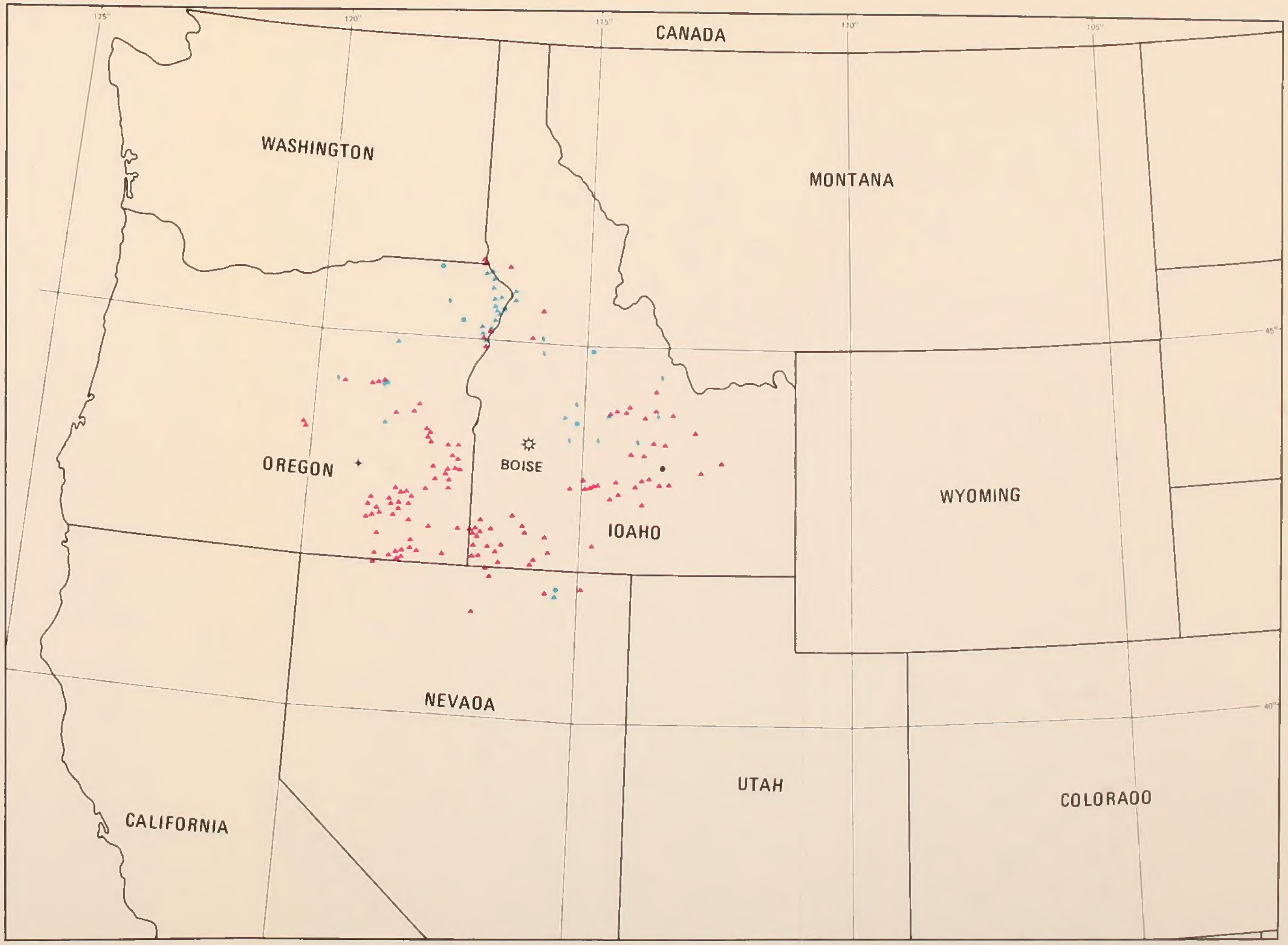
MAP 9

ECOSYSTEM 3130–49

🟨 3130–49 Intermountain Sagebrush – Sagebrush Steppe

● Existing or Potential Wilderness

Scale 1:7,500,000



MAP 10

SMSA – BOISE

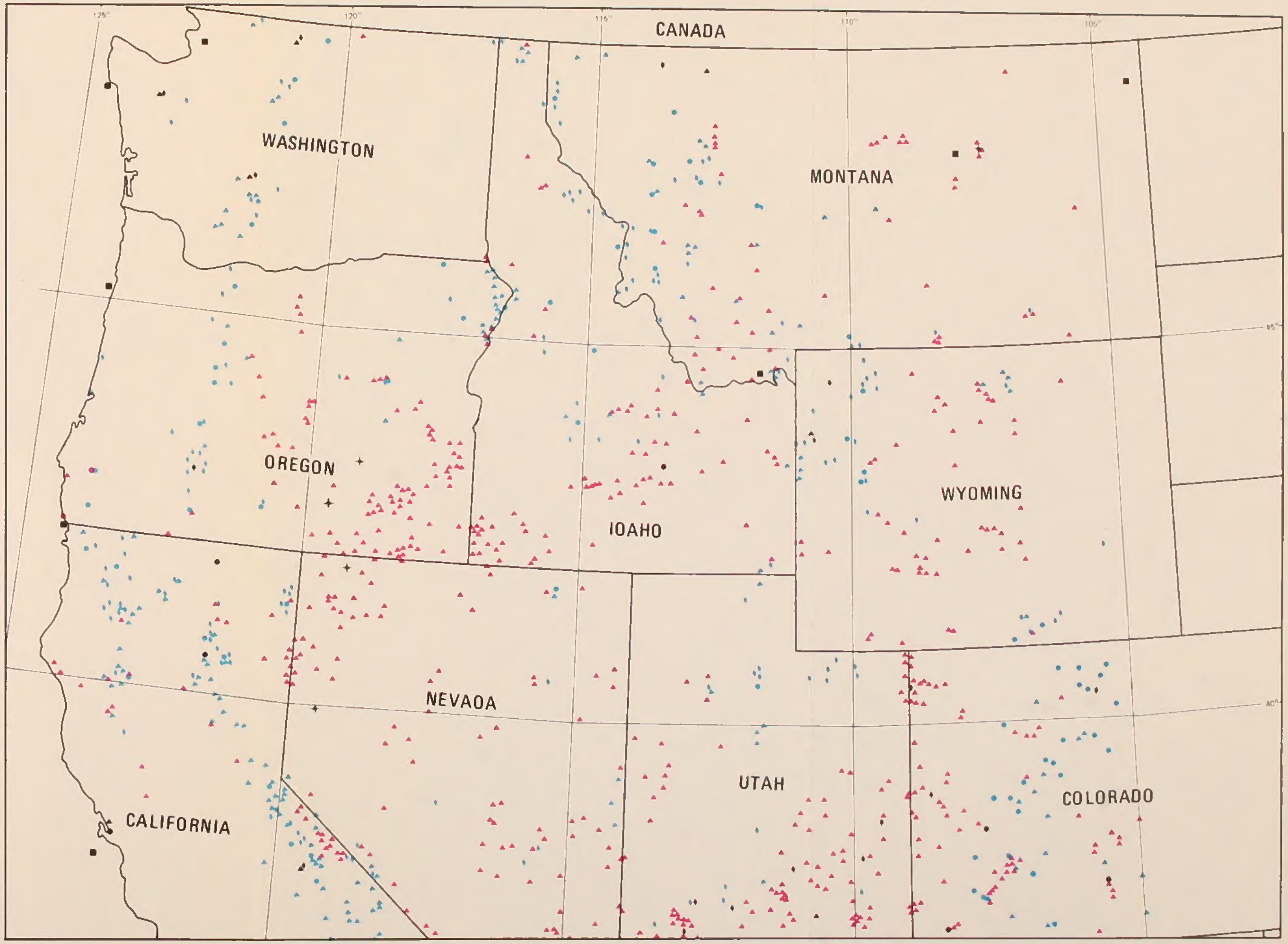
● USFS DESIGNATED WILDERNESS
• USFS AEW
▲ USFS FURTHER STUDY

● BLM DESIGNATED WILDERNESS
BLM AEW
▲ BLM FURTHER STUDY

SCALE 1:7,500,000

● NPS DESIGNATED WILDERNESS
• NPS AEW
▲ NPS FURTHER STUDY

■ FWS DESIGNATED WILDERNESS
✦ FWS AEW



MAP 11

GEOGRAPHIC DISTRIBUTION OF EXISTING OR POTENTIAL WILDERNESS

● USFS DESIGNATED WILDERNESS
♦ USFS AEW
▲ USFS FURTHER STUDY

● BLM DESIGNATED WILDERNESS
NONE BLM AEW
▲ BLM FURTHER STUDY

SCALE 1:7,500,000

● NPS DESIGNATED WILDERNESS
♦ NPS AEW
▲ NPS FURTHER STUDY

■ FWS DESIGNATED WILDERNESS
✦ FWS AEW

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